Ballona Wetlands Freshwater & Hydrology:

Conceptual Model, Engineering Record, Hydrogeology, Regulatory History, and Current Status

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Prepared following CDFW's July 9, 2026 BWER Land Management Plan Public Workshop

Distribution copy: in-line references to this memo's multi-AI review process have been trimmed from the body text for readability, and the Revision History has been omitted from this copy to reduce length. The complete Revision History — including the full review record, every correction, and every disclosed research limitation — is available in the working version of this document.

Executive Summary

This memo is a documentary review, grounded in primary sources, of the freshwater and hydrology issues raised at CDFW's July 9, 2026 public workshop on the Ballona Wetlands Ecological Reserve (BWER) Land Management Plan. It covers six areas in turn: the engineered Ballona Freshwater Marsh and its permitting (Section 3); the 2013–2017 Unpermitted Drains enforcement matter (Section 4); the hydrogeology of the underlying aquifer system, including a genuinely contested water-quality question (Section 5); Playa Vista's and the Ballona Wetlands Conservancy's regulatory and governance history (Section 6); the Groundwater Sustainability Plan and Groundwater Dependent Ecosystem question under SGMA (Section 7); and the Restoration Project's litigation and EIR status (Section 8). Section 9 collects the claims most frequently repeated in public discussion and states each one's evidentiary status — Supported, Not Established, Contested/Unresolved, or Insufficient Evidence — against its cited primary source; Section 10 summarizes the verified state of each issue in one table. This memo is not intended to adjudicate the underlying freshwater-vs.-tidal historical-ecology dispute, which is outside its scope (Section 8.2); it documents each side's sourcing rather than taking a position. One item — the Ballona Wetlands Conservancy's current (2017–present) board composition and governing bylaws — remains a durable open question that this memo's research methods cannot resolve; it would require an in-person or written records request (Section 6.3). This memo's evidentiary methodology appears in "Purpose and Method" below; a full account of how this edition was produced and reviewed appears in the Revision History of the working version of this document (omitted from this distribution copy — see note above).

Contents

Executive Summary 1
Contents 2
Purpose and Method 4
1. The July 9, 2026 Workshop: What Is Officially Confirmed 5
2. Conceptual Hydrologic Model 6
3. Engineering Design of the Freshwater System 7
3.1 Approved Water-Management Structures 8
3.2 Operating Data 9
3.3 Southeast Area B — a reported operational change, from a credible private source 9
4. The Unpermitted Drains Enforcement Matter (2013–2017) 10
4.1 What happened 10
4.2 The engineering distinction the CCC drew 10
4.3 Resolution 11
4.4 A separate, distinct claim: the 2009 “Square Drain” 11
4.5 The Betty Courtney letter — sourcing status 11
5. Hydrogeology of the Ballona Aquifer System 12
5.1 Regional aquifer stratigraphy — the named “Ballona aquifer” 13
5.2 Groundwater gradients and historical discharge to wetlands 14
5.3 Water quality — the chloride finding, and who put it in the record 14
5.4 Independent evidence on the estuary’s actual water sources 15
5.5 The seawater-intrusion pathway — the GSA’s own finding 16
5.6 GDE acreage — the GSP’s own revised figure 16
5.7 CDFW’s restoration-impact position 17
5.8 The 2019 FEIR/LARWQCB exchange and the 2021–22 GSP record: a converging, unresolved gap 17
6. Playa Vista’s Regulatory History: Permits, Settlement, Governance, and Compliance 19
6.1 Origin: the 1990 settlement 19
6.2 Legal authority over freshwater deliveries — not a water right 19
6.3 Ballona Wetlands Conservancy — governance 21
6.3.1 A confirmed case of overlapping board leadership, and its relevance to this memo’s own sourcing 23
6.4 Freshwater Marsh water source — engineered component (Draft vs. Final GSP language) 24
6.5 Well completion reports — corrected, refined, and re-verified 26

6.6 HMMP and O&M records — three distinct documents 28
6.7 Regulatory jurisdictions overview 29
7. SGMA, the Groundwater Sustainability Plan, and the GDE Question 31
7.1 What DWR actually determined 31
7.2 The advocacy claim versus the record 31
7.3 The 2005 Ecological Reserve designation — verified 32
8. The Restoration Project, EIR Status, and the Freshwater-vs.-Tidal Debate 33
8.1 Litigation and EIR timeline 33
8.2 CDFW's historical-ecology and freshwater-alternative position 33
8.3 Net effect 34
8.4 The federal NEPA/USACE track — separately on hold 34
8.5 LARWQCB's April 2026 push for EIR recertification 34
8.6 A separate, earlier permitting dispute: the 2022 Nationwide Permit 6 geotechnical-borings appeal 35
9. Frequently Repeated Claims and Their Evidentiary Status 36
10. Summary of Current State of Affairs (dates as noted per row; most recent entry July 26, 2026) 42
11. Sources — Full URLs 43
Primary, government, and directly-reviewed sources 43
Advocacy sources (Grassroots Coalition / saveballona.org) — treated as advocacy, not primary, throughout 45
Contemporaneous news coverage 45
Appendix: Scope and Limits of This Memo 46

Purpose and Method

This memo documents, with primary sources, the freshwater and hydrology claims and issues raised at CDFW's July 9, 2026 public workshop on the Ballona Wetlands Ecological Reserve (BWER) Land Management Plan (LMP). It has gone through several rounds of primary-source verification; see the Revision History of the working version of this document for how this edition was produced and what changed from the prior one (omitted from this distribution copy — see note above), and the Appendix for a note on preparation methodology.

A note on how this memo's sourcing was possible: this review draws on a substantial personal archive — built over several years of documenting the Ballona Wetlands Restoration Project and related matters — spanning primary agency filings, litigation records, permit histories, and correspondence, along with the computing resources to search and cross-reference it efficiently. That archive, not any privileged or non-public access, is why a number of primary documents cited here (letters, transcripts, permit findings) could be located, obtained, and read in full rather than relied upon secondhand. Where a document was not already in that archive, this memo says so explicitly at the relevant point in the text.

Evidentiary status in this memo now uses four categories, not two: **Supported** (affirmed by primary-source evidence); **Not Established** (the primary record does not support the claim as stated); **Contested/Unresolved** (competing evidence or interpretation genuinely exists); and **Insufficient Evidence** (no claim about truth or falsity — the underlying document simply has not yet been located). These are different failure modes and are not interchangeable. Where a claim's status changed across revisions — for example, a claim that was inaccurate as originally stated but has since been refined or corrected by better information, which genuinely differs from a claim that was simply never established — Section 9 uses compound labels built on this base vocabulary (e.g., "Corrected," "Refined," "Partially Contradicted," "Reported, Not Independently Verified") rather than forcing that distinction into one of the four base categories alone. These compound labels are refinements of the base vocabulary, not a departure from it. Confidence levels (High/Moderate/Low) are assigned strictly by source type: High = verified against a primary document read in full; Moderate = a single secondary/technical source or a primary source with an unresolved counter-claim; Low = advocacy-relayed or single-source-only. **"High confidence" describes confidence in the cited evidence — that the document says what this memo reports it saying — not certainty about the underlying real-world fact itself. A primary document can be read correctly and still be wrong, incomplete, or superseded; this memo's confidence labels speak only to the former. Confidence ratings assess the quality and provenance of the cited evidence, not the importance of the issue being discussed.**

A related but distinct question is how this memo treats convergent circumstantial evidence: cases where several indicators bear on the same proposition but none individually qualifies as a primary document read in full. Two rules govern this. First, convergence must be genuinely independent to count at all: no amount of repetition from sources that share the same underlying provenance constitutes independent corroboration — three copies descended from

one scan remain, evidentially, one source. Second, the absence of contradicting evidence is not itself convergent evidence; a negative records search or the fact that "nothing identified during this review indicates otherwise" describes the absence of a disconfirming finding, not an affirmative indicator, and should not be counted alongside genuinely affirmative, independently-sourced confirmations when assessing how much convergence actually exists. Where a claim's source-provenance confidence is genuinely strengthened by multiple independent affirmative indicators meeting both rules, Section 9 may append an optional parenthetical corroboration note (e.g., "convergent corroboration") to the assigned tier. This note documents why* a Moderate or Low rating rests on more than a single weak item; it does not itself move a rating up a tier, and it never substitutes for the High threshold, which continues to require actual examination of a primary document.*

Consistent with this memo's standing rule, no characterization by any advocacy organization — what a document says, what an agency has "acknowledged," or what a settlement "requires" — is treated as established without independent confirmation against the primary document or an independent third party. This standard applies without exception; one citation, checked directly against source text, was found to rely on a superseded statute (Section 6.5) and corrected accordingly.

1. The July 9, 2026 Workshop: What Is Officially Confirmed

CDFW's July calendar entry describes the session precisely: *"Ballona Wetlands Ecological Reserve Public Workshop, 6:30–8:30 p.m., Westchester Municipal Building… The workshop will kick off with a short presentation from CDFW staff on the purpose and process of a Land Management Plan followed by a breakout session for small group discussion."* (

- CDFW July 2026 Calendar)

CDFW's internal LMP briefing deck confirms the process is new and that no recording or transcript was made of these engagement sessions (

- CDFW, Land Management Plan Stakeholder Engagement Meetings (slide deck))

The July 9, 2026 BWER Land Management Plan workshop highlighted that freshwater hydrology, groundwater management, and salinity remain among the most actively debated technical issues affecting the reserve. Public discussion demonstrated substantial disagreement regarding groundwater, freshwater inputs, pumping, drainage, and the ecological role of freshwater within the reserve. Because many statements made during public discussion represented opinions or interpretations rather than formally documented agency positions, this memo evaluates these issues using the primary documentary sources below, rather than the floor discussion itself.

No Land Management Plan has ever existed for BWER in its 20-plus years as a Title 14, Section 630 Ecological Reserve — a gap both CDFW's launch of this process and outside observers (e.g., restoration ecologist Margot Griswold, PhD) treat as an acknowledged deficiency (

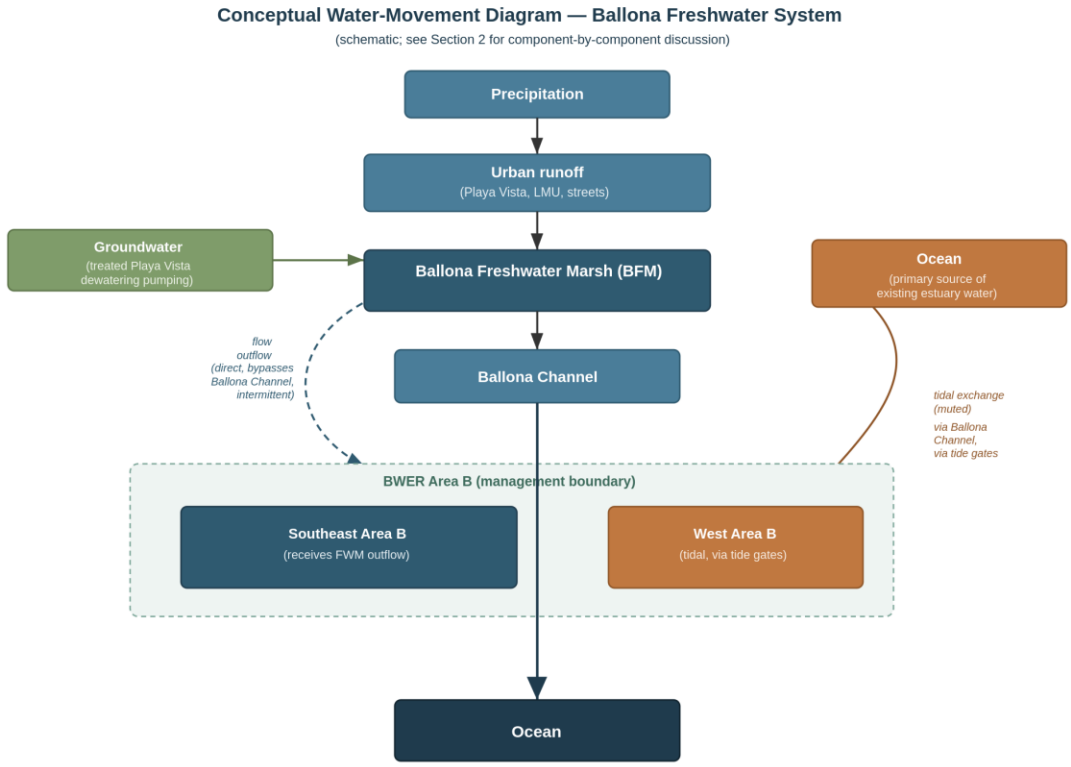
- Margot Griswold, "Inconsistencies and Missed Opportunities," LA Audubon, Oct. 30, 2021)

2. Conceptual Hydrologic Model

Before the technical detail in later sections, it's useful to see how Ballona's water sources fit together as one system. Six principal components of the present-day hydrologic system:

- **Precipitation** — seasonal rainfall over the ~130-sq-mi Ballona Creek watershed, mostly captured by storm drains in this highly urbanized basin rather than infiltrating directly. One specific pathway Dr. Margot Griswold flagged: precipitation falling on and collecting over Area A is allowed to drain into the Fiji Ditch — an excavated, unlined drainage channel running parallel to Fiji Way along Area A's northern boundary, per the Restoration Project's own Draft EIS/EIR definitions — and from there toward Marina del Rey. The Fiji Ditch is also, per an independent LMU study (Dorsey 2015; see Sources), the only part of the Reserve besides West Area B's tide gates that receives direct tidal inundation from the Ballona Estuary (Section 5.4), making it a two-way pathway: precipitation/runoff drains out through it, and tidal water moves in through it.
- **Urban runoff** — stormwater and dry-weather flow from Playa Vista, Loyola Marymount University, and surrounding streets, collected via inlets and channeled to the Freshwater Marsh system.
- **Ballona Freshwater Marsh (BFM)** — the engineered 51-to-52-acre treatment wetland (Section 3) that receives this runoff, plus treated groundwater from Playa Vista's remediation/dewatering pumping (Section 6.4), and discharges via three approved outlets into either Ballona Channel or the salt marsh to the west.
- **Groundwater** — a stack of aquifers beneath the site (semiperched → Bellflower aquitard → Ballona aquifer → deeper Lakewood/Silverado units, Section 5), historically discharging to the wetlands before 20th-century pumping reversed that gradient regionally.
- **Ballona Creek** — the channelized, concrete-lined flood-control waterway that receives BFM outflow and carries it toward the ocean; also the westward drainage path for the ~130-sq-mi watershed.
- **Tidal exchange** — muted tidal input to West Area B through self-regulating tide gates (Section 3.2), mixing with the freshwater/runoff described above; independent isotope data show ocean water is the larger of the two contributors in the existing, degraded system (Section 5.4). The reserve's Southeast Area B, by contrast, currently receives freshwater only from precipitation, BFM spillover and weir discharge, and runoff from the Westchester Bluffs — not through the tide gates. In practice this supply is intermittent: the volume reaching Southeast Area B is subject to discretionary control by CDFW and BFM/Conservancy operators, and has reportedly been reduced or cut off at times. CDFW has separately explored

reconfiguring the BFM outfall or tide gates to route additional tidal flow into Southeast Area B as part of future restoration planning, but no such connection exists today. See the diagram below and Section 3.2.



Conceptual water-movement diagram for the Ballona Freshwater System

The workshop's central technical dispute is really about which of these six components should dominate after restoration — advocacy groups place greater emphasis on freshwater inputs (BFM, groundwater) as the historical baseline; CDFW's certified design emphasizes restoring tidal exchange. Sections 3–8 examine each component and that dispute in turn.

3. Engineering Design of the Freshwater System

The BFM is a constructed, 51-to-52-acre engineered wetland — a 26-or-27-acre freshwater marsh (west of Lincoln Boulevard and south of Jefferson Boulevard) plus a 25-acre riparian corridor; see the note below on which figure sources favor — running along the base of the Westchester Bluffs east of Lincoln Boulevard to Sepulveda Boulevard, connected to the marsh via a passage under Lincoln Boulevard. It was authorized by Coastal Development Permit (CDP) No. 5-91-463, approved by the CCC on September 13, 1991. The marsh was completed in February 2003; the riparian corridor extension along the Westchester Bluffs was completed in 2008 (

- Los Angeles City Planning Department, Staff Report to the City Planning Commission, Case No. CPC-2003-5865-ZC-GPA-SPA-DA (CEQA: ENV-2002-6129-EIR), staff report dated December 10, 2009, transmitted to City Council January 28, 2010 [Council File 10-0245; obtained directly by Tom McMahon from the LA City Council website, full text verified directly against the primary document] (confirms corridor location "along the base of the Westchester Bluffs," and separately states the Riparian Corridor/Freshwater Marsh connection "was completed in 2008," independently corroborating both propositions this memo attributes to it))
- Neighborhood Council of Westchester/Playa, Ballona Freshwater Marsh overview)

A note on acreage: the range above reflects a genuine split in the source record between two figures, 51 acres (26-acre marsh plus 25-acre riparian corridor) and 52 acres (27+25). Sources favoring 51 acres: (1) Playa Vista's own current site; (2) the 2010 FHFA letter (Section 6.3); (3) a February 2019 letter from Playa Capital's own Vice President of Planning & Entitlements to LARWQCB (Section 6.1); (4) the CCC's own 2001 staff report on the revocation request (Section 6.2), which describes the CDP as covering a "26.1-acre freshwater marsh restoration project" — rounding to the 26-acre component rather than 27; and (5) the original 2006 PWA engineering baseline report (Section 3.3 above), which independently states the Freshwater Marsh is "26 acres" (Section 4.6.4) — the earliest of the five, and the only one with no connection to the developer, its regulatory filings, or the CCC's 2001 staff report. Sources favoring 52 acres: (1) the neighborhood-council overview cited above, the earliest source overall; (2) a City of LA Planning FEIR response document (Section 6.6); and (3) the City of Los Angeles's Village at Playa Vista Final EIR (April 2004), discussing the 1994 litigation settlement that established the Freshwater Wetlands System, which states the parties agreed to construction of "the 52-acre Freshwater Wetlands System" — the settlement's own contemporaneous description. The 1-acre difference is likely rounding or a minor differing count of the marsh proper versus the full engineered system, not a substantive discrepancy about what was built. This memo treats the question as genuinely contested rather than settled: 52 acres has both the earliest source and a contemporaneous litigation-settlement description; 51 acres has three later regulatory-filing sources plus the two earlier engineering/permit sources specific to the 26-acre marsh component. Readers should treat this as a genuine, unresolved minor discrepancy rather than a settled figure either way.

3.1 Approved Water-Management Structures

- A **spillway system** between the freshwater marsh and the salt marsh;
- A **sluice-gate structure** between the freshwater marsh and the salt marsh; and
- A **control weir with a tide-gated outlet** between the freshwater marsh and Ballona Creek/Channel.

Verified directly from the CCC's April 11, 2014 enforcement letter, which quotes the CDP application verbatim (

- CCC letter to Playa Capital Company, LLC, April 11, 2014 (full text obtained and reviewed))

3.2 Operating Data

West Area B receives muted tidal input (up to ~1.1 m) through two self-regulating tide gates and one flap gate; soil salinities range from ~25 ppt (estuarine) up to ~70 ppt (hypersaline, infrequently inundated) (

- BWER Habitat Descriptions, Santa Monica Bay Restoration Commission/TBF, 2014)

Independent 5-year monitoring (2009–2014) by The Bay Foundation measured salt-pan soil salinity at a grand mean of 92.27 ± 5.19 ppt — the highest of any habitat type surveyed. ("Independent" here means funding- and authorship-independent, not affiliation-free in every sense; see Section 6.3.1 for a disclosed institutional-overlap fact bearing on that latter point, which does not affect this study's methodology or findings.) (

- The Bay Foundation, Comprehensive 5-Year Monitoring Report, Dec. 2015)

3.3 Southeast Area B — a reported operational change, from a credible private source

A credible individual with direct, on-the-ground knowledge of reserve operations reports, in a private communication to this memo's preparer, that a substantial operational change was put into effect in the last few years allowing significantly more water to flow from the BFM into Southeast Area B, creating a more permanent non-tidal marsh there than existed previously. On the same account, Southeast Area B nonetheless still dries out in May or June while recently hatched water birds are still flightless and foraging in standing water, despite the BFM itself remaining at full capacity — an outcome attributed to the settings of the various control structures (Section 3.1) rather than to any shortfall in the BFM's own water supply. This is consistent with a broader pattern (Section 2): the volume of water actually delivered from the BFM to Southeast Area B is subject to discretionary control by CDFW and BFM/Conservancy operators, and has reportedly been reduced or cut off at times, independent of the specific increased-flow claim above. A February 2019 letter from Playa Capital Company to LARWQCB (Section 6.1) describes a specific engineered threshold consistent with this pattern: under normal conditions, freshwater is routed to Ballona Creek via the control weir; only "with a one-year storm event or greater" does the freshwater also spill into the salt marsh west of the Freshwater Marsh — which this memo has confirmed, directly from Tom McMahon, is the same location referred to elsewhere in this memo as Southeast Area B. This describes an engineered storm-threshold trigger, distinct from (and not necessarily in tension with) the separate operator-discretion pattern described above; both may govern the same pathway at different times.

This same engineered threshold appears in the site's original 2006 engineering baseline documentation, thirteen years before the Playa Capital letter above: Philip Williams & Associates' *Ballona Wetland Existing Conditions* report (Section 4.6.4) states that the Freshwater Marsh "is designed to accommodate runoff generated by a 1-year frequency storm event and smaller." This memo now treats the 2006 PWA report as the primary source for this design threshold, with the 2019 Playa Capital letter serving as independent

corroboration from a later, non-engineering source (*Philip Williams & Associates, Ballona Wetland Existing Conditions, Final Report, August 2006, Section 4.6.4*)

Separately, a Los Angeles Audubon Society petition to the State Water Resources Control Board (Section 8.6) reports that the Playa Vista development's own 2003 EIR hydrology analysis found surface water flow historically reaching the Ballona Wetlands was reduced by "between 50–63 percent" as a result of the development, citing "EIR Playa Vista 2003, Hydrology." This memo has now independently obtained and read the cited 2003 Draft EIR Hydrology chapter directly: Table 28 (PDF p. 38) shows the actual range is "54 percent to 63 percent," not "50–63 percent" as the Audubon petition states — close, but not an exact match; the underlying analysis and its less-than-significant conclusion are otherwise accurately characterized by the petition.

This account is provisionally treated as credible because the source has direct, on-the-ground operational knowledge and because its description of discretionary control over water delivery is internally consistent with the independently documented pattern in Section 2, rather than because of any waiver of the further primary-source verification that an anonymous or advocacy-sourced claim would otherwise need. That said, the specific timing tension it describes — a control-structure regime that keeps the BFM at full capacity while Southeast Area B still dries during the water-bird breeding season — remains a specific, checkable detail that would still benefit from corroboration against a primary document (e.g., a CDFW operational or adaptive-management record, an LMP briefing document, or a monitoring report) if one becomes available in a future round.

4. The Unpermitted Drains Enforcement Matter (2013–2017)

4.1 What happened

Two drains — one north of Culver Boulevard, one south — were installed within natural saltmarsh/habitat areas separated from the BFM by Jefferson Boulevard, never described in or authorized by CDP No. 5-91-463. The CCC notified Playa Capital Company, LLC of the violation (June 12, 2013); Playa Capital responded (Dec. 11, 2013); the CCC issued a detailed rebuttal (April 11, 2014).

4.2 The engineering distinction the CCC drew

The approved outlets move water *into* the salt marsh or Ballona Channel; the Unpermitted Drains pulled water *away from* habitat and discharged it untreated. Verbatim (pp. 8–9 of 9): *"Water is the main requirement for a functional wetland… This has clearly happened in the vicinity of the Unpermitted Drains."*

The user-supplied partial quote — *"a water supply of a reliable quantity and quality is needed thus contributing to the habitat function of the larger Ballona Wetland project instead of directing it away from habitat regs…"* — does not appear verbatim on page 3 of this letter, or elsewhere in it, on a direct reading of the full text. *The letter's actual page-3 language, quoted directly, reads: "In order to maintain the proposed vegetation and habitat of*

the system, a water supply of reliable quantity and quality is needed" (quoting the CDP application, Appendix 11, ps. EX1-2) — similar in substance (both describe the BFM's need for a reliable freshwater supply) but not the same sentence.

4.3 Resolution

CDFW and Playa Capital reached a 2017 resolution: the drains were confirmed as Coastal Act violations, and CDFW committed to a CDP application to cap them (

- CCC staff report, December 2017)

4.4 A separate, distinct claim: the 2009 "Square Drain"

Advocacy materials separately allege a distinct device ("Square Drain") inserted in 2009 into a different area ("Extended Wetland Portion"), based on Google Earth imagery analysis, not a CCC/CDFW enforcement record. No independent confirmation was located; this should not be conflated with the verified 2013–2017 matter above (

- Grassroots Coalition, Ballona Wetlands Conservancy control claims)

4.5 The Betty Courtney letter — sourcing status

A letter attributed to Betty Courtney, Environmental Program Manager I, CDFW South Coast Region, addressed to Marc Huffman, Vice President, Brookfield Residential Planning & Entitlements, dated August 9, 2017, states that the Ballona Wetlands Freshwater Wetland System Habitat Mitigation and Monitoring Plan (issued under Streambed Alteration Agreement No. 1600-1993-0639-R5) required 0.29 Million Gallons a Day (MGD) of water from the RWQCB-mandated groundwater treatment facility to be discharged into the riparian corridor and marsh mitigation area, against an actual average delivery of 0.12 MGD — a shortfall the letter states "compromised the success of the mitigation project, limited the habitat function and value, and decreased fish and wildlife diversity." (

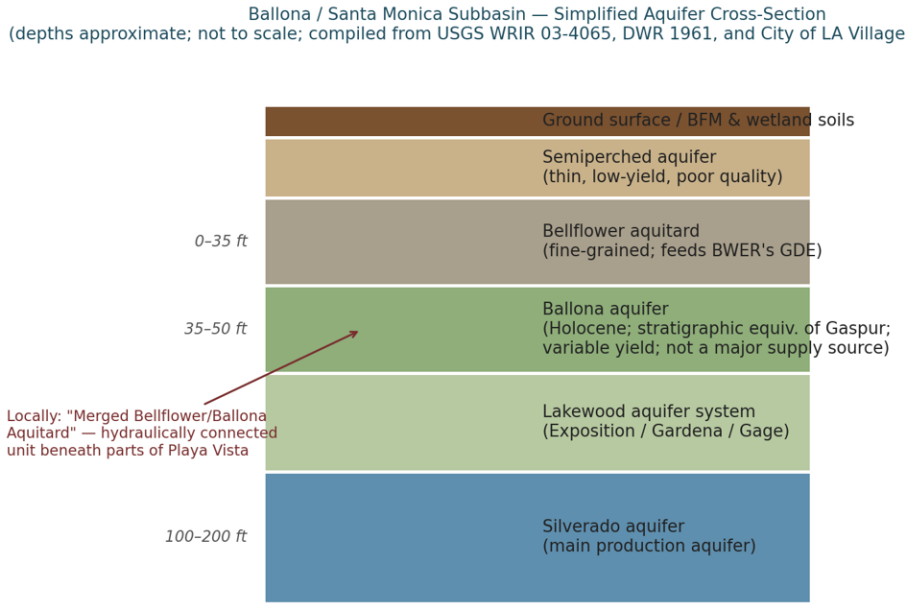
- saveballona.org, Betty Courtney letter relay)

No independent CDFW-hosted or otherwise independently-sourced copy of this letter's text has been located through CDFW's own records. A Public Records Act request seeking it was filed with CDFW on July 16, 2026 (CDFW reference no. R021113-071626); CDFW's Office of General Counsel responded on August 11, 2026 that "CDFW has conducted a thorough and diligent search of its records and has determined there are no documents responsive to your request." This does not itself establish that the letter is inauthentic — California state agency records-retention schedules routinely permit disposal of correspondence after a period of years, Betty Courtney is reported elsewhere in this memo as a retired CDFW employee, and a negative PRA search result reflects what CDFW's current records custodian could locate, not a determination that the underlying correspondence never existed — but the specific verification path this memo previously identified as available has now been tried and did not produce a responsive record. Three separate attempts to trace an independent source for the relayed copy — a higher-resolution rescan of the same relayed images, and a claimed appearance in the California Coastal Commission's August 2020 exhibit packet for CDP 5-18-

0554 (W16c-8-2020-exhibits.pdf) — each resolved back to the same underlying citation: a January 18, 2020 Grassroots Coalition email forwarding scanned images, hosted at saveballona.org. The CCC exhibit packet does contain a July 2020 submission from Patricia McPherson (Grassroots Coalition) to CCC enforcement staff quoting this letter and citing the same saveballona.org URL, but the letter itself is not independently reproduced there; this review located no evidence that CDFW formally disputed the letter within that administrative record. Separately, and more significantly, Marc Huffman — the letter's named recipient — confirmed directly to this memo's preparer that the letter is contained in Brookfield Residential's project files, though he no longer has access to those files to produce a copy. This is independent of the Grassroots/saveballona.org chain entirely, since Huffman is the original addressee, not a downstream relay, and it provides independent corroboration of the letter's authenticity that is unaffected by CDFW's own negative records search. A separate, visually complete copy of this letter (full letterhead, a signature, and a previously unknown courtesy-copy line to Dave Chernik of Playa Vista Environmental) was separately obtained by this memo's preparer in July 2026; its provenance prior to reaching this memo's preparer could not be established, and its content is identical to the previously relayed scan. The courtesy-copy line is information the originally relayed scan does not contain, which is inconsistent with this copy being a mere re-derivation of that same scan and provides some basis for confidence that a fuller original document exists — consistent with this memo's standing rule (Purpose and Method) that repetition sharing the same underlying provenance carries no independent weight, while a genuinely new detail can. This does not, however, constitute independent chain-of-custody verification, since this copy's ultimate source still cannot be shown to be independent of the same underlying original, and it does not verify the fidelity of the relayed scan's specific quoted language or figures (0.29 MGD required vs. 0.12 MGD delivered) to a degree beyond what is stated above. Nothing identified during this review indicates that the letter is inauthentic, and the recipient's independent confirmation continues to provide support for its authenticity. No conclusion in this memo depends exclusively on this letter. This memo's preparer now considers the reasonably available primary-source verification avenues for this letter exhausted — the named recipient's direct confirmation, a formal Public Records Act request to the issuing agency, and examination of a second copy of the document — and treats the evidentiary status above (Authenticity: Supported (Moderate; recipient-side corroboration — see Purpose and Method); quoted content: Insufficient Evidence (Low)) as a durable conclusion rather than an open item pending further inquiry, consistent with this memo's treatment of other exhausted research questions (e.g., Section 6.3).

5. Hydrogeology of the Ballona Aquifer System

This chapter separates two properties the workshop discussion sometimes conflated: **hydraulic productivity** (how much water an aquifer yields) and **chemical quality** (what's dissolved in it). These are independent properties and a low-yield aquifer is not necessarily poor-quality or vice versa.


Ballona / Santa Monica Subbasin — Simplified Aquifer Cross-Section
(depths approximate; not to scale; compiled from USGS WRIR 03-4065, DWR 1961, and City of LA Village at Playa Vista EIR)
Ground surface / BFM & wetland soils
Semiperched aquifer
(thin, low-yield, poor quality)
0–35 ft
Bellflower aquitard
(fine-grained; feeds BWER's GDE)
35–50 ft
Ballona aquifer
(Holocene; stratigraphic equiv. of Gaspur;
variable yield; not a major supply source)
Locally: "Merged Bellflower/Ballona
Aquitard" — hydraulically connected
unit beneath parts of Playa Vista
Lakewood aquifer system
(Exposition / Gardena / Gage)
100–200 ft
Silverado aquifer
(main production aquifer)

Ballona / Santa Monica Subbasin simplified aquifer cross-section

5.1 Regional aquifer stratigraphy — the named "Ballona aquifer"

USGS's regional geohydrologic study (built on the 1959 Poland/USGS survey and DWR's 1961 classification) identifies a specifically named **Ballona aquifer** within the "Recent" (Holocene) aquifer system, alongside the semiperched aquifer, the Bellflower aquiclude, and the Gaspur aquifer (a terminology note: USGS's own usage is "aquiclude"; this memo's own prose elsewhere follows the City of Los Angeles Village at Playa Vista EIR's usage, "Bellflower Aquitard," for the same hydrogeologic unit — paralleling the capitalization note already given for that term):

- *"The Ballona aquifer is the stratigraphic equivalent of the Gaspur aquifer and may have been deposited by the Los Angeles River system… The yield of the Ballona aquifer is quite variable and the Ballona aquifer is not a major source of water supply."* (This is a *quantity* finding — it says nothing about water quality. It is also, specifically, a finding about capacity for municipal/drinking-water supply — a distinction Dr. Margot Griswold's review prompted this memo to draw — not about whether shallow groundwater is sufficient to sustain GDE/vegetation needs; those are separate questions this report does not address.)
- USGS Water-Resources Investigations Report 03-4065 (Reichard et al., 2003)

The City of Los Angeles's own Village at Playa Vista EIR gives precise local depths: the **Bellflower Aquitard** extends from near-surface to ~35 ft; the **Ballona Aquifer** from ~35–50 ft; and the **Silverado Aquifer** from ~100–200 ft. Beneath portions of the site, the lower Bellflower Aquitard and the Ballona Aquifer merge into a single hydraulically connected unit, the "Merged Bellflower/Ballona Aquitard" (see diagram above) (

- City of LA, Village at Playa Vista Draft EIR)

5.2 Groundwater gradients and historical discharge to wetlands

USGS: *"Before significant ground-water development began, ground water moved from the forebay areas… south and west toward the Santa Monica and San Pedro Bays… The water eventually discharged either in wetlands or offshore."* By the 1920s, pumping had driven water levels below sea level regionally, reversing this: *"ground water no longer discharged into wetlands or offshore. Instead, seawater began moving inland."* (Same source as above: USGS Water-Resources Investigations Report 03-4065, Reichard et al., 2003, pp. 19–20 — confirmed verbatim; 1920s–1959 historical data, not current conditions.)

5.3 Water quality — the chloride finding, and who put it in the record

A comment on the Santa Monica Subbasin GSP states: *"The Bellflower aquitard from which the BWER derives its water is not a fresh water aquifer. The Poland report, referred to in the GSP as USGS 1959, shows that the chloride concentration in the BWER exceeded 500 mg/L in the 1950s."* (500 mg/L exceeds the 250 mg/L secondary drinking-water standard; this is 1950s historical data, per the Poland/USGS 1959 survey — not necessarily current conditions.) This comment (#39 in the GSP's response log) was submitted by **Todd T. Cardiff**, the attorney who has represented Grassroots Coalition and the Ballona Ecosystem Education Project in essentially all of their Ballona-related litigation since at least 2016. So this chloride figure was entered into the official administrative record by Grassroots' own retained counsel, not by an independent third party — readers should weigh that provenance accordingly (

- Santa Monica Subbasin GSP — Appendices C–D (comment/response))

This sits in direct tension with Grassroots Coalition's own separate materials describing Ballona's "multiple underlying freshwater aquifers that are classified by the state as Drinking Water and Potential Drinking Water." That characterization likely traces to a real regulatory mechanism, not a bare advocacy assertion: California's Basin Plan framework (State Water Board Resolution 88-63) presumptively designates all groundwater as a Municipal and Domestic Supply (MUN) beneficial use unless a water body is specifically dedesignated. This memo has not independently confirmed whether that presumptive MUN designation has been evaluated or dedesignated for the specific Bellflower aquitard/Ballona aquifer unit discussed here. Critically, a MUN beneficial-use designation is a protective legal classification governing what water quality standards apply to a water body — it is not a certification of current water quality, and a water body can carry a MUN designation while also, as here, showing contamination levels that would fail drinking-water standards. No independent, current (post-1959) water-quality study of the Ballona aquifer specifically was located that resolves this tension; it is marked Contested, not resolved — both because the underlying regulatory classification and the underlying contamination finding are each independently sourced, and because the relationship between a beneficial-use designation and actual measured water quality is a genuinely separate question this memo has not resolved. A third source points the same direction as the GSA and the 1950s chloride data: Playa Capital's own February 2019 letter to LARWQCB (Section 6.1) states that "the aquitard under the Freshwater Marsh

contains water high in saline" — a statement from the site's own developer, not from either side of the Contested dispute described above.

A further data point bears directly on this question: a Los Angeles Audubon Society petition to the State Water Resources Control Board (Section 8.6) states that LARWQCB staff's own comment letter on the Ballona Restoration Project Draft EIR (dated February 7, 2018) already "consider[ed] the impacts to the underlying Ballona Aquifer and Bellflower Aquitard that are designated as potential drinking water and drinking water, respectively, as defined by LARWQCB in its Basin Plan." This memo has obtained and read that letter directly (Comment Letter AL9, discussed further in Section 5.8). Dr. Margot Griswold separately asked what "beneficial use" actually covers, suspecting it includes water-dependent plant/habitat systems — and the letter answers this precisely, though not quite in the way the Audubon petition implied. AL9-2 states the Los Angeles Water Board's Basin Plan beneficial uses for the Ballona Wetlands as a named surface water body include "wetland habitat, estuarine habitat, wildlife habitat, rare and endangered species support, migration of aquatic organisms, spawning, reproduction, and/or early development support, and contact and noncontact water recreation." This is a real and broad beneficial-use list — but it is assigned to the surface water body (the Wetlands/Ballona Creek), not to the underlying groundwater basin discussed above. The Santa Monica Subbasin GSP's own beneficial-use list for groundwater specifically is narrower — MUN, IND (industrial service), PROC (industrial process), and AGR only, with no separate ecological or habitat designation. The two lists are not in conflict; they answer different questions (surface water use vs. groundwater use), and the Audubon petition's characterization of AL9 as evaluating "the underlying Ballona Aquifer and Bellflower Aquitard" specifically has not been separately confirmed within the letter's own seven numbered comments.

5.4 Independent evidence on the estuary's actual water sources

The Bay Foundation's CDFW/State Coastal Conservancy-funded 5-year monitoring program: *"Water isotope and dissolved major ion concentration data indicate that upper (eastern) Ballona Creek and Dockweiler Beach were both found to contribute to the Ballona Estuary… with oceanic water as the primary contributor. Upper Ballona Creek contributions… were found to increase after a precipitation event."* (Dockweiler Beach = the ocean-side sample location.) This is an independent isotope measurement, not a CDFW policy statement or advocacy assertion. A scope clarification Dr. Margot Griswold raised and this memo has now confirmed: "Ballona Estuary" is a specific, named tidal-influenced segment of the Ballona Creek channel — running from Centinela Avenue to the Pacific Ocean, per LARWQCB's own watershed definitions — and is a distinct water body from the Ballona Wetlands/BWER interior, the two being connected only through tide gates. Per an independent LMU study (Dorsey 2015; see Sources), only about 15 of the Reserve's roughly 527 acres (2.9%) receive tidal water directly, principally through West Area B's tide gates and the Fiji Ditch (Section 2). Dorsey (2015) is also the source of the 527-acre figure itself — the author's own approximate total for the BWER, distinct from the four more precise reserve-acreage figures reconciled in Section 7.3 (553 / 566 / ~577 / ~600); it is not treated as a fifth authoritative total, only as this source's own stated denominator for its 2.9% figure. This finding — that ocean water is the primary contributor to the already-tidal

Ballona Estuary channel — is not necessarily representative of water sources in the historically freshwater-dominated interior portions of the Reserve at issue in the broader freshwater-vs.-tidal debate (Section 8.2); it speaks specifically to the channel segment the isotope samples were drawn from.

5.5 The seawater-intrusion pathway — the GSA's own finding

The Santa Monica Subbasin GSA states directly, twice, in its adopted comment-response record: *"There is no hydraulic connection between the groundwater production aquifers and the water levels in the Bellflower aquitard, which supports the GDEs."* ("GDEs": Groundwater Dependent Ecosystems, discussed further in Section 7.2.) This is the GSA's own stated basis for not requiring biological-response monitoring tied to groundwater production levels, and it is the primary-source answer to the seawater-intrusion-to-wetland pathway question raised at the workshop (

- Santa Monica Subbasin GSP — Appendices C–D, Comments #17 and #24 responses)

Dr. Margot Griswold raised three specific challenges to this finding, confirmed on further research. First, she cautioned against reading this "no hydraulic connection" finding as license to treat oceanic dominance as reserve-wide: the finding concerns groundwater production aquifers and the Bellflower aquitard specifically, not a claim that ocean water is the main water source for the reserve as a whole — the same scope caution addressed in Section 5.4 regarding the Bay Foundation isotope study. Second, she pointed to the GSP's own Appendix F (Technical Memorandum on Groundwater Modeling), which states directly — not merely in response to a public comment — that "currently there are no multi-level monitoring wells between the Marina del Rey area and the inland areas of the Basin, where most pumping occurs… This represents a significant data gap in conceptualizing groundwater flow beneath the Marina del Rey area and the potential for salt water intrusion." This is a stronger, more direct admission than the Appendices C-D comment-response record alone conveys, and is folded into the fuller discussion of this data gap in Section 5.8. Third, she flagged that the "no hydraulic connection" finding may not fully account for older shallow-groundwater investigations at the site: Hargis & Montgomery, Inc.'s three-phase groundwater and hydrogeologic investigation of the former Hughes/Summa Corporation facility (1984–1986), and Law/Crandall's 1990 groundwater monitoring well installation and water-quality study for Maguire Thomas Partners, undertaken specifically "to determine ground water quality and gradient conditions in the vicinity of the Ballona Wetlands" (quoted language as relayed via Griswold; not yet independently checked against the primary Law/Crandall report). Both are real, primary, site-specific shallow-groundwater investigations predating the GSA's current finding by three decades; this memo has not yet independently reviewed their contents in full, and notes their existence as relevant prior documentation the GSA's finding does not appear to cite.

5.6 GDE acreage — the GSP's own revised figure

The GSP's response to a Margot Griswold comment states: "The NCCAG identifies 37.3 acres of freshwater emergent wetland and freshwater forested/shrub wetland vegetation

communities within the BWER (Table 2-18)." This 37.3-acre figure — not the reserve's full ~600 acres — is the area the state's own dataset currently associates with GDE criteria; estuarine/marine-classified portions of the reserve (per the National Wetlands Inventory) were excluded because "the ocean is their main source of water." This memo has independently confirmed this figure and its source directly against the primary GSP Appendices C–D document (the same comment-response record cited above): responding to Comment #34 (Margot Griswold), the Santa Monica Basin GSA states verbatim, "the language has been changed in the GSP to read 'The NCCAG identifies 37.3 acres of freshwater emergent wetland and freshwater forested/shrub wetland vegetation communities within the BWER (Table 2-18).' See GSP Section 2.4.7.3." This is a direct, verbatim match, resolving a fact-check flag raised during this memo's Rev 1.9.16 peer-review round.

5.7 CDFW's restoration-impact position

CDFW's current FAQ: *"No — restoration would increase tidal flushing and circulation and reduce the settling of additional runoff… Any tidal flows introduced as part of the restoration would not infiltrate into any potable groundwater source."* (

- CDFW, Ballona Wetlands Restoration Project — FAQ)

These two agency statements are generally consistent regarding the absence of a material seawater-intrusion-to-wetland connection, but neither is an independent third-party study of Ballona specifically — both are the responsible agencies' own assessments.

5.8 The 2019 FEIR/LARWQCB exchange and the 2021–22 GSP record: a converging, unresolved gap

The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board), in its February 7, 2018 comment letter on the Draft EIS/EIR (Comment Letter AL9), challenged CDFW's determination that the impact to the municipal water supply beneficial use of the underlying groundwater basin from increased tidal inundation would be less than significant, on grounds that "the groundwater in this area is not used for domestic or municipal supply." The Los Angeles Water Board pointed out that its own Basin Plan designates municipal water supply as an existing beneficial use for the Santa Monica Basin, which underlies the restoration area, and asked CDFW to justify the less-than-significant finding "from the expected increase in the extent of tidal inundation resulting in advancement of sea water intrusion" (Comment AL9-7).

CDFW's response (Final EIR, Response AL9-7, pp. 2-212 to 2-213) does not dispute the beneficial-use designation. Instead, it argues that the Coastal sub-basin underlying the Reserve has never actually functioned as a municipal supply source: citing the City of Santa Monica's 2016 Urban Water Management Plan and 2014 Sustainable Water Master Plan (none of the City's 10 active wells sit in the Coastal sub-basin; the sub-basin "has not been utilized as a groundwater source to date due to salt water intrusion"), 2003 groundwater data from the Village at Playa Vista DEIR showing TDS levels there "above municipal drinking water standards, and in many cases far above," and a 1975 DOGGR report

documenting that wells in the Ballona Reserve area were abandoned in the 1930s after seawater intrusion ruined water quality. CDFW then argues the determinative difference from the 1930s is that groundwater pumping will not occur within the Reserve under any project alternative, so the pumping-plus-tidal-influence combination that caused historical intrusion cannot recur, and concludes a less-than-significant impact.

This is a historical-analogy argument, not a forward-looking hydrogeologic one. It supports the narrower claim that the Coastal sub-basin directly beneath the Reserve was never usable and isn't rendered less usable by the project. It does not address whether an enlarged tidal prism, absent any pumping, could increase the hydraulic gradient in a way that advances intrusion laterally or vertically into aquifers actively relied upon elsewhere, particularly the Silverado aquifer, which Response O11-252 acknowledges is stacked beneath the Bellflower aquiclude and the Ballona aquifer in this vicinity, and which the adjacent West Coast Basin protects against intrusion using an active injection barrier funded in substantial part for that purpose.

Response O11-252 — a different response in the same Final EIR, prompted by an unrelated comment about well-completion-report availability — does address this specific pathway directly, and does so with a hydrogeologic mechanism rather than a historical analogy. CDFW states that increased tidal prism "would only affect the shallower perched groundwater above the Bellflower aquiclude," because "any brackish water introduced as tidal flow would have little-to-no chance to infiltrate beneath the Bellflower aquiclude, much less migrate into the deeper Ballona aquifer or further to the Silverado aquifer," citing the aquiclude's "relatively low hydraulic conductivity" and composition ("a heterogeneous mixture of low permeability silts and clays, with lenses of sandy or gravelly clays") together with "low residence time of tidal change." This is a categorical permeability-based argument, not a site-specific hydraulic model or monitoring data quantifying the gradient change from the proposed tidal-prism increase specifically; CDFW cites general aquifer-stack references for the aquifer structure itself, not a study modeling this pathway's magnitude.

This is not merely an inference. The Santa Monica Subbasin GSP process (2021–2022), conducted by a separate agency (SMBGSA) on a separate comment record, reaches the same structural conclusion without reference to AL9-7. Responding to a comment pressing for monitoring wells between Marina del Rey and the Charnock wellfields specifically to assess seawater-intrusion risk along this stretch of coastline, SMBGSA acknowledged that "additional monitoring wells would be helpful (see Section 3.5.8.2)" and proposed a future project to install them (Section 4.9), while declining to add wells south of Playa del Rey at present (GSP Appendix C, Comment/Response 83). Separately, responding to Dr. Margot Griswold's direct challenge that the GSP failed to address saltwater intrusion from removal of "over 3 million cubic yards of soils" under the CDFW plan, SMBGSA responded only that "there is no evidence that removal of shallow soil from the BWER would contribute to seawater intrusion in the Ballona and Silverado aquifers" (GSP Appendix C, Comment/Response 36) — a claim resting on the same regional groundwater model whose data gaps in exactly this location are acknowledged elsewhere in the same document (Comment/Response 20).

CDFW's Final EIR record therefore contains two responses bearing on seawater intrusion: AL9-7's historical-analogy argument, and O11-252's categorical permeability argument, which does name and address the specific tidal-prism-into-Silverado pathway this memo previously found unaddressed. That pathway is no longer unaddressed by CDFW as a factual matter — but "addressed" here means CDFW asserted the aquiclude's low permeability precludes the pathway, not that CDFW presented hydraulic modeling or monitoring data demonstrating this specific to the proposed project's tidal-prism increase. SMBGSA's separate 2021–2022 GSP record, on an independent comment record, still answers the same underlying question by citing the absence of contrary evidence rather than presenting monitoring data — its response is unchanged. The status is refined, not resolved: CDFW's own record now includes a specific mechanism-based rationale, but it rests on general hydrogeologic characterization rather than demonstrated, site-specific analysis, and SMBGSA's independent record still shows the data gap this memo previously identified in full.

6. Playa Vista's Regulatory History: Permits, Settlement, Governance, and Compliance

6.1 Origin: the 1990 settlement

Friends of Ballona Wetlands' institutional history describes the 1990 settlement of its 1984 lawsuit against the CCC — **Friends of Ballona Wetlands v. California Coastal Commission, LA Superior Court Case No. C525826** — preserving ~340 of Ballona's remaining ~600 acres and establishing three conditions on the future BFM: it must create habitat superior to what existed before; that habitat must be maintained in perpetuity; and it must be redesigned/rebuilt if incompatible with salt-marsh restoration (

- Friends of Ballona Wetlands, institutional history)

This memo has independently confirmed Case No. C525826 against a party-to-the-case primary source: a February 25, 2019 letter from Playa Capital Company's Vice President of Planning & Entitlements to the LARWQCB states that "the adequacy of this EIR was challenged in court (Los Angeles Superior Court, Case No. C 525826), the EIR was validated by Judge Rothman in his August 23, 1994 decision." The same letter independently states that the Freshwater Marsh and Riparian Corridor together "form a 51-acre Freshwater Wetlands System" — corroborating this memo's existing 51-acre figure (Section 3) directly from the developer's own regulatory filing.

- Marc Huffman (Playa Capital Company, LLC), letter to LARWQCB, February 25, 2019 (obtained by Tom McMahon, full text reviewed)

6.2 Legal authority over freshwater deliveries — not a water right

A directly relevant question raised in review: who legally controls freshwater entering the BFM, and under what instrument? Verified from a 2001 CCC staff report (a formal petition

to revoke the CDP, which required the Commission to lay out the full ownership/permit chain):

- There is **no California water right** (SWRCB appropriative permit) governing the BFM. The relevant instruments are a federal Clean Water Act Section 404 permit, a state coastal permit, and a real-property deed reservation.
- The BFM's authorizing federal permit is **U.S. Army Corps of Engineers Permit No. 90-426-EV** (this corrects a typo appearing in some Grassroots Coalition materials, which cite it as "90-4426-EV").
- The Freshwater Marsh Parcel was owned outright by the developer (Maguire Thomas Partners → Playa Capital Company, LLC), at least through 2001. A 1998 "Form of Deed" negotiated with the State Lands Commission — to receive title only after construction completion — explicitly **reserved to Playa Capital** the ongoing right to "construct and maintain the freshwater marsh… in accordance with the permits it holds… from the U.S. Army Corps of Engineers, the California Coastal Commission and the City of Los Angeles." That reservation survives conveyance to the state — meaning operational control sits with the developer's successor (today, under the Ballona Wetlands Conservancy), **not CDFW.** *This describes legal/permit authority specifically; see Section 10 for the distinct question of day-to-day operational discretion over delivered water volume, which involves CDFW jointly with BFM/Conservancy operators and is not in tension with this legal-authority finding.*
- The governing performance standard is a CDP mitigation-credit condition, not a minimum-flow water right: CDP 5-91-463's Special Condition 5 lists, among grounds the Commission can use to find the BFM has not been "established" (and therefore withhold release of the developer's mitigation credits), both "insufficient quality of freshwater entering the wetland system" and "insufficient quantity of freshwater entering the wetland system." This is enforced by the Coastal Commission through the mitigation-credit mechanism, not by the State Water Resources Control Board's water-rights process. This memo has independently confirmed this Special Condition's exact wording directly against the Commission's April 8, 1992 permit amendment findings for Application No. 5-91-463-A2 (the same proceeding cited above): Special Condition 5 ("Minimum Biological Values") lists, verbatim, among the grounds precluding a finding that the Freshwater Wetland System has been established, both "insufficient quality of freshwater entering the wetland system to protect and maintain the biological resources of the wetland system" and "insufficient quantity of freshwater entering the wetland system to protect and maintain the biological resources of the wetland system" — a verbatim match, resolving a fact-check flag raised during this memo's Rev 1.9.16 peer-review round.
- CCC Staff Report, Revocation Request, Application No. 5-91-463-A2 (2001, full text obtained)

One additional legal doctrine likely bears on this permit-and-deed structure: California's public trust doctrine, which imposes state stewardship obligations over certain public trust

resources and has been extended by California courts beyond traditional tidelands to water rights allocation generally (National Audubon Society v. Superior Court (1983) 33 Cal.3d 419, the Mono Lake case) and, more recently, to groundwater hydrologically connected to navigable waters (Environmental Law Foundation v. State Water Resources Control Board (2018) 26 Cal.App.5th 844, which also held that SGMA does not supplant the doctrine). Given the State Lands Commission's role in the 1998 Form of Deed described above, the public trust doctrine may be relevant background to how the state's residual interest in the BFM is understood. This memo does not undertake a public trust doctrine analysis — including no assessment of whether or how these cases apply to Ballona specifically — consistent with its stated scope as not a legal opinion (see Appendix); the citations above are offered only as verified background on the doctrine's existence and scope, for a reader with that background who may wish to consider it further. This doctrine is noted solely because it appears in the legal background governing California water resources generally, not because this memo takes any position on its application to Ballona.

6.3 Ballona Wetlands Conservancy — governance

The Conservancy is a real, currently active California nonprofit public benefit corporation (filed Nov. 30, 2000, document #2321643) with IRS 501(c)(3) status (EIN 91-2100439, ruling year 2004 — per CA Secretary of State business-entity records and the IRS Exempt Organizations Business Master File; these specific identifiers were not independently re-verified against the FHFA letter, which confirms the Conservancy's existence and structure but not these registry numbers), formed pursuant to the 1990 stipulated judgment above, funded through a 0.75% Community Enhancement Fee Agreement ("CEFA") on Playa Vista home resales rather than public money.

This memo has obtained and read directly the October 13, 2010 joint comment letter from the Conservancy and Playa Capital Company, LLC to the Federal Housing Finance Agency (FHFA docket 2010-N-11). The letter confirms: the Conservancy was organized to operate and maintain a 51-acre stormwater treatment and wildlife habitat system (the BFM riparian corridor and marsh, termed the "Ballona Wetlands Improvements" in the letter); it was "designed to be a cooperative entity managed by a four-member board of directors composed of one director appointed by each of the following: (a) the Friends of Ballona Wetlands, (b) Playa Capital, (c) a representative appointed by the councilperson for the local district of the Los Angeles City Council, and (d) a representative appointed by the Secretary of Land Resources for the State of California" — quoted verbatim, including the title "Secretary of Land Resources," which this memo has not otherwise been able to match to a standard California state office title. A dedicated search for this exact title across all periods found no match; the closest real titles are "Secretary for Resources"/"Secretary of the Resources Agency" (the office's name before it became the Natural Resources Agency, currently held by Wade Crowfoot) and, separately, the State Lands Commission's own leadership (currently an Executive Officer, not a "Secretary"). This provides evidence consistent with, but does not resolve, this memo's existing hedge: "Secretary of Land Resources" is most likely informal or erroneous phrasing in the original letter, not a title this memo simply hasn't found yet — but this memo does not assert a specific reconciliation as established. A fourth, independent source lends further weight to that

hedge: Playa Capital's own February 2019 letter to LARWQCB (Section 6.1) describes the Conservancy board as including a representative "appointed by the Resources Secretary of the State of California" — using the "Resources Secretary" phrasing this memo already identifies as the more standard title, rather than "Secretary of Land Resources." The letter also confirms the CEFA funding mechanism (0.75% of gross resale price, authorized under Civil Code §1368(c)(2)(A)) and states that the underlying 1990 settlement (Case No. C525826) named as real parties in interest the State of California, the County of Los Angeles, the City of Los Angeles, Southern California Gas Company, and Maguire Thomas Partners-Playa Vista (Playa Capital's predecessor-in-interest). It is signed, in their official corporate capacities, by the Conservancy's President and Playa Capital's Co-President.

One limit on this now-confirmed evidence: the letter describes the board as designed as of 2010. Grassroots Coalition's disputes about actual board composition date from 2017 onward — up to a decade or more later — and assert that no state or city representative actually sits on the board in practice, citing a 2006 amended judgment (predating even this letter) that allegedly names different, Playa-Vista-internal controlling entities. A structure accurately described as designed in 2010 does not, by itself, establish who sat on the board, or under what governing document, in 2017–2022. The 2006 amended judgment itself remains unretrieved.

- FHFA docket 2010-N-11, joint Conservancy/Playa Capital comment letter, October 13, 2010 (full text obtained and reviewed)

A separate, independent data point: a December 2022 letter filed in the California Coastal Commission's own correspondence record — submitted by a private individual, not Grassroots Coalition and not the Conservancy/Playa Capital — states that "The Ballona Wetlands Conservancy Board of Directors consists of Friends of Ballona Wetlands, CDFW, Playa Vista, and City Council District 11." This names CDFW specifically rather than a "Secretary of Land Resources" appointee — plausibly consistent with the FHFA letter if CDFW happens to be the appointing Secretary's choice of representative, but this memo does not assert that reconciliation as confirmed. It remains a second, independently sourced account describing a four-party board structure with a state-government seat, in tension with Grassroots' claim that no state or city representative sits on the board.

- CCC correspondence record, December 2022 (independent letter re: Conservancy board composition)

A third independent account describes the same structure: a March 2018 email from a California State Lands Commission attorney, reproduced by Grassroots Coalition itself on its own website, states the Conservancy board consists of "one representative each from: the State (from the Department of Fish and Wildlife), the City of Los Angeles Council District 11, the Friends of the Ballona Wetlands, and Brookfield (successor-in-interest to Playa Capital Company, LLC)." That is now three independently sourced descriptions (the entities' own 2010 letter, the Dec. 2022 CCC correspondence, and this 2018 SLC attorney email — the latter two both naming CDFW/the State specifically) of a four-seat institutional structure with a state-government seat.

- Grassroots Coalition, Ballona Wetlands Conservancy control claims (reproducing the 2018 SLC email)

Grassroots Coalition disputes any four-member structure being actually in force in current practice, asserting instead that a 2006 amended judgment (same Case No. C525826) names different, Playa-Vista-internal controlling entities (referenced elsewhere as "PVPAL," "PVCS," and "CAMPUS"). *On review, this specific characterization traces to exactly one source — a single February 2022 public comment letter to the State Lands Commission — which asserts the 2006 judgment "spells out the membership as Playa Vista development sites (PVPAL, PVCS, CAMPUS)" without quoting, excerpting, or citing a page of the judgment itself; the sentence immediately preceding that assertion in the source document is itself truncated and does not name the entities it appears to introduce. No independent corroboration of this specific characterization was found. It is also not echoed in Grassroots' own earlier (2018–2019) materials on the same governance question, including the 2018 SLC email above and a May 2019 Grassroots/Sierra Club slide deck presented to the Coastal Commission, which discusses the Conservancy's 2000 formation and a "2006 Stipulated SA" only in connection with an earlier 1990s "Ballona Committee"/"Ballona Foundation" transition — never mentioning PVPAL, PVCS, or CAMPUS.* This is Grassroots' characterization of what an unretrieved document says, not evidence of the document's contents.

A note on this item's status going forward: the 2006 amended judgment has not been retrieved across multiple research attempts using web-based search and direct-fetch methods. LA Superior Court's online systems do not support historical docket lookup for a case this old (interactive session required, not a direct URL), and no filing by any party in this dispute attaches the judgment as an exhibit. Retrieving it would require an in-person or written request to LA Superior Court's Archives and Records Center. On the Conservancy's current bylaws specifically, this memo has now directly obtained and read the complete filing history on the CA Attorney General's Registry of Charitable Trusts detail page for the Conservancy (RCT Registration No. 118809): the Registry's own list of every filing and correspondence document on record — renewals, Form RRF-1s, Form 990 series filings, and delinquency notices, from 2003 through 2026 — contains no entry for Articles of Incorporation or Bylaws. This confirms directly, from the primary registry record itself, that the current bylaws are not part of the Registry's public file, rather than merely reporting that the search had not been attempted. Obtaining them would require a direct records request to the Conservancy itself. This memo therefore treats the board's actual, current composition as a standing, durable open question rather than an item likely to be resolved by further online research, and does not expect to close it through additional research rounds of this kind.

6.3.1 A confirmed case of overlapping board leadership, and its relevance to this memo's own sourcing

Independent of the institutional-board dispute above, this memo separately confirmed — directly, from the Friends of Ballona Wetlands' own official website, not from any advocacy account — that **Catherine Tyrrell** simultaneously holds three roles: *"President of the Ballona Wetlands Conservancy, Secretary of the Friends of Ballona Wetlands, and… a Board member of the (Santa Monica) Bay Foundation."* This is named here, unlike other individuals discussed in this memo's governance research, because it is self-disclosed by both

organizations on public-facing pages in exactly this civic capacity — the same basis on which this memo names other officials acting officially (e.g., CCC Enforcement Analyst Andrew Willis, attorney Todd Cardiff).

- Friends of Ballona Wetlands, board bio: Catherine Tyrrell

This is directly relevant to this memo's own sourcing: Sections 3.2 and 5.4 cite The Bay Foundation's 2015 Comprehensive 5-Year Monitoring Report as an example of independent science — "not advocacy-funded, not CDFW-authored." That characterization concerns the report's funding and authorship (California State Coastal Conservancy-funded, written by Bay Foundation scientific staff), which remains accurate; it is not undermined by this finding. But readers should be aware that the Bay Foundation's board includes the same individual who leads the Conservancy — one of the parties to the freshwater-vs.-tidal dispute this memo documents. This is disclosed here as a relevant fact bearing on institutional independence, not as a critique of the monitoring data itself, which this memo has independently reviewed on its methodology and findings.

This memo has now directly obtained and read three of the Conservancy's IRS Form 990 filings from the CA Attorney General's Registry of Charitable Trusts (RCT Registration No. 118809): FY2018, FY2021, and FY2022. These are the only Form 990 filings currently shown as distinct entries in the Registry's filing list; this memo does not assert that Form 990s for other years in FY2019–FY2025 exist or were filed, correcting an earlier, unverified assumption to that effect. *Part VII of each filing lists officers by name, not the four institutional board seats described above. FY2018 lists three individuals: Marc Huffman (CEO), Catherine Tyrrell (Secretary), and Debbie Dyner-Harris (CFO). FY2021 lists two: Catherine Tyrrell (CEO) and Sandra Kitashima (Secretary and CFO). FY2022 lists two: Catherine Tyrrell (CEO) and Bill Seth (Secretary and CFO). A Form 990's officer table is a distinct disclosure from an organization's full board of directors, so this does not by itself confirm or contradict the four-seat board structure discussed above. Marc Huffman's FY2018 listing as the Conservancy's CEO is disclosed here because he is separately relied upon elsewhere in this memo (Section 4.5) as the Betty Courtney letter's named recipient and an independent corroborating source for that letter's authenticity; his Conservancy role and his Brookfield role are distinct capacities, and this disclosure does not itself bear on the letter's authenticity. Separately, Friends of Ballona Wetlands' website (cited above) describes Tyrrell's Conservancy title as "President"; the Conservancy's own FY2021 and FY2022 Form 990 filings list her Conservancy title as "CEO." This memo notes the variance without resolving it; nonprofit officer titles are sometimes used informally or interchangeably, and this memo does not treat the variance as evidence of anything beyond an unreconciled title difference. These filings are the organization's own self-reported disclosures to the IRS, not independently audited for accuracy by any third party.*

6.4 Freshwater Marsh water source — engineered component (Draft vs. Final GSP language)

This memo has obtained and read directly the Santa Monica Subbasin GSP's Appendices C–D (comment/response record). The two GSP passages at issue turn out to be **Draft GSP**

language, not confirmed final adopted text — a distinction the commenting party itself makes explicit.

The passage describing treated Playa Vista groundwater discharge to Centinela Creek as "a primary component of flow in the freshwater marsh," without which the marsh "would not exist," is quoted in a Grassroots Coalition comment (numbered 244 in this appendix) with the citation "Draft GSP" appended to the quote itself. The GSA's official response states: *"Language has been changed in the GSP to 'The freshwater marsh treats urban runoff and stormwater from the Playa Vista development and also receives treated groundwater that is pumped from the Ballona aquifer and Bellflower aquitard in Playa Vista (USEPA 2012; RWQCB 2018).' See GSP Section 2.4.7.4."* That shorter, more limited sentence — confirming only that the BFM receives treated pumped groundwater, without the "primary component" or "would not exist without" framing — is, per the GSA's own representation, the current adopted language.

Separately, a passage attributing approximately 174 acre-feet of Q3 2020 Ballona-aquifer pumping to "groundwater quality remediation and dewatering activities" at Playa Vista (sourced to "Playa Capital Company 2020") is quoted in a Grassroots comment (numbered 208) with the explicit citation "Pgs. 59-60 of 230 Chapter 2 Draft GSP." The GSA's response to a closely related comment (numbered 209, objecting to the vagueness of "dewatering activities at the Playa Vista development") states: *"The draft GSP has been revised to remove a reference to 'dewatering activities' as it is not clear from the review of available documentation that there are dewatering wells on the Playa Vista site. Rather, the Playa Vista final EIR from 2004… describes the dewatering system as a 'contingent' system that would operate only if/as groundwater elevations occur at the level of the dewatering pipes," and that this system "does not include dewatering by pumping from deep wells or any specific well points."*

The final adopted GSP Chapter 2 (dated January 2022) states, at page 2-63: *"The only known wells that produce groundwater from the Ballona aquifer are associated with groundwater quality remediation at the Playa Vista development… In the third quarter of 2020 these wells produced approximately 174-acre feet of groundwater from the Ballona aquifer (Playa Capital Company 2020)."* The 174 acre-foot figure survived into the final text essentially unchanged, while the "dewatering wells" characterization did not — consistent with the GSA's stated rationale above. *The final Chapter 2 document exists, is dated January 2022, and is hosted where reported; page 2-63 specifically has not been independently re-fetched and confirmed through a different method. This is a stable limitation of available tools, not a reason for doubt about the quote itself.*

- Santa Monica Subbasin GSP — Appendices C–D, Comments #208, #209, #244 and responses (full document obtained and reviewed)
- LARWQCB NPDES Order 97-046 fact sheet
- DWR SGMA Portal, GSP Annual Report program page (Rev 1.9: replaced dead deep-link with live general page)

6.5 Well completion reports — corrected, refined, and re-verified

Advocacy materials assert Playa Vista's dewatering-well completion reports are unobtainable due to statutory confidentiality (Water Code §§13751–13752). **This is no longer an accurate description of the law.** Water Code §13752 was amended by **Stats. 2015, Ch. 24, Sec. 42 (SB 83), effective June 24, 2015**; the current codified text reads: *"Reports… shall be made available as follows: (1) To governmental agencies. (2) To the public, upon request…"* This is independently confirmed by the State Water Resources Control Board's own November 17, 2015 Executive Director's report: *"In June 2015, Senate Bill 83 amended California Water Code section 13752 to allow public access to well completion reports through the Department of Water Resources (DWR), with the owner's name and address redacted. Prior to the statutory amendment, well completion reports were confidential and not available to the public."*

- SWRCB Executive Director's Report, November 17, 2015 (confirms SB 83 amendment)

This memo has now directly and independently re-verified this finding against DWR's live ArcGIS feature-service API (the i07_WellCompletionReports layer underlying both the public map app and the bulk CSV), re-run July 2026. A query for City LIKE "%PLAYA VISTA%" again returns exactly 131 well completion reports — but the internal composition differs from, and refines, what was previously reported: 107 are logged as new-well construction records and 24 as destruction records (not 127/4), filed across 2010–2022 (not 2012–2019). The driller of record appears under three name variants — BEKS Acquisition Inc. (103 records), BC2 Environmental Corp (8 records), and BC2 Environmental LLC (20 records) — but these are confirmed to be the same continuously-operating firm, not three unrelated drillers: California Air Resources Board's November 2017 enforcement settlement record identifies the company as "BEKS Acquisition, Inc. DBA BC2 Environmental," and this dba relationship is independently confirmed by the firm's IRS Employer Identification Number registration (EIN 262932313, "BEKS ACQUISITION INC. DBA BC2 ENVIRONMENTAL," Orange, CA). The apparent shift from "BC2 Environmental Corp" to "BC2 Environmental LLC" in later filings is consistent with an ordinary corporate reorganization (Corp to LLC) rather than a change of firm. None of the 131 records located by this search were logged with a planned use identifying them as the specific extraction/dewatering wells the GSP cites as producing measurable pumping volumes — they are overwhelmingly monitoring-well construction and destruction records. This database query has now been independently replicated a second time (the original query's date and exact search field could not be reconstructed, so this update supersedes rather than merely confirms the prior 127/4/2012–2019 figures); it points to a materially more precise gap than "confidential by law" — the reports are searchable and largely public, but the specific pumping wells were not identified by name in this search. If Playa Vista's dewatering-well reports have not been located via USACE (the source Grassroots cites checking), that also reflects checking the wrong custodian — DWR, not USACE, holds these records.

- Cal. Water Code §13752, current codified text (Justia)

- DWR Well Completion Report Map App
- DWR General Public Well Completion Report Request form
- Ballona Wetlands Conservancy, IRS Form 990, FY2018 (obtained from CA AG Registry of Charitable Trusts, RCT Reg. No. 118809; full text reviewed)
- Ballona Wetlands Conservancy, IRS Form 990, FY2021 (obtained from CA AG Registry of Charitable Trusts, RCT Reg. No. 118809; full text reviewed)
- Ballona Wetlands Conservancy, IRS Form 990, FY2022 (obtained from CA AG Registry of Charitable Trusts, RCT Reg. No. 118809; full text reviewed)
- CA Attorney General, Registry of Charitable Trusts, detail page for Ballona Wetlands Conservancy, RCT Registration No. 118809 (complete filing history reviewed directly)
- State Water Resources Control Board, Water Quality Petitions page (dismissal-by-operation-of-law rule; reviewed directly)
- DWR, i07_WellCompletionReports ArcGIS Feature Service (gis.water.ca.gov), query re-run July 2026 [added in Rev 1.9.19]
- California Air Resources Board, BEKS Acquisition, Inc. DBA BC2 Environmental Case Settlement, November 2017 [added in Rev 1.9.19]
- BEKS Acquisition Inc. DBA BC2 Environmental, EIN 262932313, Employer Identification Number Registry [added in Rev 1.9.19]
- Philip Williams & Associates, Ballona Wetland Existing Conditions, Final Report, prepared for the California State Coastal Conservancy, August 2006 (obtained by Tom McMahon, full text reviewed) [added in Rev 1.9.15]
- Los Angeles Regional Water Quality Control Board, letter to Erinn Wilson-Olgin (CDFW), April 20, 2026 (Susana Arredondo, Executive Officer; obtained by Tom McMahon) [added in Rev 1.9.15]
- LARWQCB, Notice of Applicability for Ballona Wetlands Sequences 1 and 2 Geotechnical Borings Project, October 31, 2022 (Ashley Olmeda; obtained by Tom McMahon) [added in Rev 1.9.15]
- Los Angeles Audubon Society, petitions to State Water Resources Control Board re: NWP 6 Notice of Applicability, November 28, 2022 and January 12, 2023 (Travis Longcore, Ph.D. and Margot Griswold, Ph.D.; obtained by Tom McMahon, full text reviewed) [added in Rev 1.9.15]
- RestorCap, Final Delineation of Waters, letter report to USACE and California Coastal Commission, May 10, 2022 (Amanda McCarthy, PhD, PWS, SE; obtained by Tom McMahon, full text and appendices reviewed) [added in Rev 1.9.15]

- Santa Monica Subbasin GSP, Appendices C–D (Comment/Response Summary), Comment #34 (Margot Griswold) [independently fetched and confirmed in Rev 1.9.18]
- California Coastal Commission, Permit Amendment Findings, Application No. 5-91-463-A2, April 8, 1992 (Special Condition 5, "Minimum Biological Values") [independently fetched and confirmed in Rev 1.9.18]

A narrower, subsequent finding — not independently replicated a second time: three specific wells — RW-2, RW-3, and RW-4 — are separately logged in DWR's database as "Remediation" (not monitoring), at coordinates near Playa Vista/Jefferson Boulevard, drilled the same day by the same driller. *However, no CAO 98-125 or associated LARWQCB order document names "RW-2/3/4" specifically — the link between these wells and the CAO is circumstantial (matching location and 2004 timing), not a confirmed regulatory citation. This is reported narrowly, as a partial nuance to the prior finding, not as closing the gap entirely.*

6.6 HMMP and O&M records — three distinct documents

This memo previously treated the document-identity question as a two-document uncertainty ("December 2003" vs. "October 2001, Appendix F-2"). City of LA Planning FEIR response documents identify **three distinct, sequential documents**: (1) the Habitat Mitigation and Monitoring Plan (HMMP) itself, by Playa Capital Co., November 1995, setting habitat/water-related goals under USACE Permit 90-426-EV; (2) an Operations, Maintenance and Monitoring Manual ("O&M Manual"), by Surface Water Resources, Inc., October 2001, implementing the HMMP's Performance Criteria and filed as Draft EIR Appendix F-2; and (3) the "Ballona Freshwater Wetlands, Annual Report of Monitoring, Operation, and Maintenance" ("First Annual Report"), December 2003, the first compliance-reporting deliverable under the O&M Manual, filed in the Final EIR reference library. *The specific FEIR response page cited (p. 1082 of a City of LA Planning response document) could not be independently retrieved due to the site's automated-access restrictions. A different City of LA Planning FEIR page is consistent with part of this account: it states that "Recent monitoring data as reported in the Ballona Freshwater Wetlands Annual Report, December 2003 is included in the reference library of the Final EIR" — confirming the December 2003 report's existence and role, though not the full three-document chain or the specific page citation. This quote's specific source URL was not recorded when this passage was originally drafted; a closely related — but not verbatim-identical — sentence has since been located on p. 1082 of a City of LA Planning FEIR issues document, which may be this quote's actual source, but that match is not independently confirmed and is noted here as a lead rather than a confirmed citation. The three-document identity overall is carried as reported, with partial corroboration, not full independent verification.*

Separately, no source was found that actually equates "December 2003" with "October 2001, Appendix F-2" — that conflation, as it appeared in this memo's own research instructions, could not be corroborated as a claim advocacy sources actually make; it is reported as not verified to exist as a claim, rather than confirmed or refuted as fact.

On the HMMP's chemical parameter list: no source reproduces the 1995 HMMP's own itemized parameter table (it sits in a non-digitized FEIR reference library), but that the Draft EIR's Water Quality chapter documents, with page citations, constituents monitored under the Performance Criteria/O&M framework the HMMP established — including selenium, dissolved metals (arsenic, cadmium, copper, lead, mercury, nickel, silver, zinc), nitrogen/phosphorus benchmarks, dissolved oxygen, TSS, oil/grease, temperature, coliform bacteria, pesticides, and (for dry-weather sampling) pH, hydrocarbons, PCBs, and volatile/semi-volatile organics. A separate peer-reviewed case study of the same wetland system is reported to state "more than 160 environmental parameters monitored" over its first six years. *This detail is reported as EIR-described, not verified as a literal transcription of the HMMP's own list.*

- City of LA, Village at Playa Vista FEIR — List of New References

6.7 Regulatory jurisdictions overview

Several regulatory bodies appear throughout this memo, and it is easy to conflate their roles when they all relate to water quality or Ballona in some way. This table exists specifically to prevent that conflation — in particular, to make clear that agencies with real regulatory authority over water quality or stormwater in the Ballona Creek watershed do not necessarily have any authority over CDFW's Restoration Project or its CEQA process, which is a separate legal track.

Agency	Statutory Basis	Authority Over Ballona / Restoration Project
CDFW	Fish and Game Code; Title 14 CCR §630 (Ecological Reserve)	Owns/manages BWER; CEQA lead agency for the Restoration Project; sole holder of authority to certify or decertify the Project EIR.
California Coastal Commission (CCC)	California Coastal Act (Pub. Resources Code §30000 et seq.)	Issues coastal development permits (e.g., CDP 5-91-463 for the BFM); enforces Coastal Act violations (Unpermitted Drains matter, Section 4). Does not control CDFW's CEQA process or day-to-day reserve management.
U.S. Army Corps of Engineers (USACE)	Clean Water Act §404; Rivers and Harbors Act §10	Federal wetlands-fill permitting authority (Permit No. 90-426-EV authorized BFM construction); separate federal NEPA/EIS obligations for federally-permitted Project elements. No authority over state CEQA process.
LARWQCB (Region 4)	Porter-Cologne Water Quality Control Act; federal	Regulates water quality and permitted discharges (CAO 98-125 remediation oversight; NPDES Order 97-046).

	Clean Water Act (NPDES)	Administers the MS4 stormwater permit program under which BCWMG operates. Has no jurisdiction over CDFW-owned reserve land or the Restoration Project's CEQA process.
Ballona Creek Watershed Management Group (BCWMG)	Not a state agency — a coalition of MS4 permittees (City of LA as lead, LA County, LACFCD, Beverly Hills, Culver City, Inglewood, Santa Monica, West Hollywood) formed under LARWQCB's MS4 permit	Develops/implements the Enhanced Watershed Management Program (EWMP) for stormwater/TMDL compliance across the watershed. Its own EWMP filings state explicitly it "has no jurisdiction over the land that is owned by the State of California (i.e., CDFW…)." No documented role in the Restoration Project EIR process was located by this memo.
DWR	Sustainable Groundwater Management Act (SGMA); Water Code §13752 (well records)	Reviews/approves Groundwater Sustainability Plans (approved the Santa Monica Subbasin GSP, 2023); custodian of statewide well completion reports. No direct authority over CDFW's Restoration Project.
Santa Monica Basin GSA (SMBGSA)	SGMA; formed 2017 by Santa Monica, Beverly Hills, LA (LADWP), Culver City, and LA County	Prepares/implements the Subbasin GSP; assesses GDE status and groundwater sustainability criteria affecting Ballona. Its own comment responses state it "does not have jurisdiction to overturn a Final EIR" and defers to CDFW on restoration design questions.

On the specific question of whether BCWMG or LARWQCB has been pressuring CDFW on the Revised EIR timeline: no primary document was found tying BCWMG to this at all. LARWQCB itself, however, has engaged directly and substantively with CDFW at the full Board level. At LARWQCB's December 18, 2025 meeting, CDFW's South Coast Regional Manager (Erinn Wilson-Olgin) presented an update on the Restoration Project directly to the Board. Per the transcript/caption file LARWQCB itself published alongside the video recording of that meeting on its own website, downloaded directly by Tom McMahon; this memo's characterization of the meeting was independently verified claim-by-claim against the transcript's content (this is LARWQCB's own automated transcription of its own video — evidenced by phonetic errors such as "Biona" for "Ballona" and "the core" for "the Corps" — not an official court-reporter transcript or the Board's certified written minutes, and it has not been cross-checked against those minutes; the underlying video recording is itself publicly posted, so any quotation here can be independently re-checked against it), CDFW reported the project remains "on pause" pending revision of the EIR's hydrology section

and its underlying calculations, as required by the court order; that the department lost its external contractor funding for the EIR and is completing the work with internal staff time instead; and that no specific date could be given for release of the Revised EIR for public comment beyond a general hope for "2026." Board members expressed real frustration with the pace — Chair David Nahai stated he found "not much comfort" in the update and that it did not reflect "the kind of alacrity and commitment… that residents of this region deserve" — and discussed two possible next steps without choosing between them: Board staff proposed drafting a letter to CDFW enumerating the Ballona Wetlands TMDL's requirements and proposing "a timeline or a schedule" for compliance, and a board member separately proposed an in-person meeting between the Board and CDFW principals. The Chair endorsed exploring both — he specifically said he thought the letter "would be helpful" — rather than favoring one over the other. This meeting's transcript does not establish whether either step was actually taken afterward. This is genuine, documented institutional engagement and urging for a faster pace, though it reads as supportive rather than adversarial throughout — Board members repeatedly described themselves as CDFW's "peers" and partners on the project, not its opponents. Separately, LARWQCB's Watershed Regulatory Section — a TMDL-focused unit distinct from BCWMG and the MS4 stormwater program — also met with CDFW staff in January and February 2026 and received a further general progress update on the Revised EIR, alongside a separate discussion of the Ballona Wetlands TMDL compliance timeline; neither of those meetings' records contains a specific EIR date or deadline, and the underlying Executive Officer reports for them have not been independently retrieved. No document reviewed for this memo, from any of these meetings, ties BCWMG specifically to this engagement, and none supports a claim of pressure or motive beyond what is quoted directly above.

7. SGMA, the Groundwater Sustainability Plan, and the GDE Question

BWER falls within the Santa Monica Basin Groundwater Sustainability Agency (SMBGSA), formed 2017 by Santa Monica, Beverly Hills, LA (LADWP), Culver City, and LA County under SGMA (2014).

7.1 What DWR actually determined

On Oct. 26, 2023, DWR approved the 2022 GSP, finding it "satisfies the objectives" of SGMA, while explicitly flagging data gaps on "groundwater conditions related to seawater intrusion, and groundwater dependent ecosystems." Next periodic review: no later than Jan. 27, 2027 (

- DWR Statement of Findings, October 26, 2023)

7.2 The advocacy claim versus the record

Grassroots Coalition materials assert flatly that "Ballona Wetlands is acknowledged by the Department of Water Resources as a Groundwater Dependent Ecosystem (GDE)." No DWR document independently located states a completed, dedicated GDE determination for the full reserve. The most accurate statement supportable by the record: DWR approved the

GSP while flagging GDE-related data gaps, and the GSP's own dataset associates **37.3 acres (Section 5.6) — not the reserve's ~600 acres — with GDE vegetation criteria.**

7.3 The 2005 Ecological Reserve designation — verified

Ballona was designated a Terrestrial/Non-Marine Ecological Reserve under Title 14 CCR §630 in 2005: *"Ballona Wetlands consisting of 553 acres in Los Angeles County is proposed for designation as an ecological reserve for the protection and enhancement of coastal salt marsh and freshwater marsh habitats…"* (

- California Regulatory Notice Register 2005, No. 20-Z)

A note on reserve size: this memo uses "~600 acres" elsewhere (Sections 5.6, 6.1, 7.2, and the Section 9 summary table) as a round figure for the broader Ballona Wetlands Ecological Reserve area, while this 2005 designation notice specifies 553 acres for the parcel formally designated that year. A third figure appears in the source record: The Bay Foundation's CDFW/State Coastal Conservancy-funded 2015 monitoring report (Sections 3.2, 5.4) states the Reserve is "approximately 577 acres," tied to a 2003–2006 state acquisition total and a specific 2015 ESA boundary survey. A fourth figure, identified during this memo's peer-review process: the Court of Appeal's opinion in the Restoration Project litigation (Case No. B331193, Section 8.1) states that "the Ballona Reserve now consists of 566 acres." This figure is corroborated by CDFW's own project description and its environmental consultant's (ESA) project page, both of which describe the Restoration Project as covering "approximately 566 acres within the Ballona Reserve" — language that describes the Restoration Project's specific footprint, which may not be identical to the reserve's total area the way 553/577/600 are used elsewhere in this memo. These four figures (553 / 566 / ~577 / ~600) likely describe different things — a specific 2005 designation parcel, the Restoration Project's specific footprint, a specific later boundary-survey total, and a rounded colloquial figure for the reserve as a whole — rather than a factual contradiction, but this memo has not independently traced the exact relationship between them (e.g., whether later acquisitions, boundary adjustments, or exclusion of specific parcels from the Restoration Project's scope account for the differences). Readers should treat "~600 acres" as an approximate, colloquial figure, "577 acres" as the specific total tied to the 2003–2006 acquisitions and 2015 ESA boundary survey, "566 acres" as the specific figure used for the Restoration Project's footprint in litigation and CDFW/ESA project materials, and "553 acres" as the specific number named in the 2005 designation. A fifth figure, "527 acres," appears in Section 5.4, sourced to Dorsey (2015); it is that source's own approximate total for the BWER rather than a figure independently traced through the four sources above, and is treated here as a distinct, lower-precision estimate rather than a fifth reconciled total.

A separate, more precise acreage figure exists for a different question — the extent of jurisdictional wetlands specifically, as opposed to the reserve's total footprint. RestorCap's formal jurisdictional delineation update (fieldwork April 5–8, 2021; verified on-site with CDFW, USACE, CCC, and The Bay Foundation on April 25, 2022) found *149.4 acres of Section 404 wetlands and 232.6 acres total Corps jurisdiction* (down from 153.2 and 236.2 acres respectively in the prior 2010 WRA delineation), and *178.08 acres of CCC-jurisdictional vegetated wetlands and 261.26 acres total CCC jurisdiction* (down from 195.5 and 278.5

acres in 2010), within a 577-acre study area (604.9 acres in 2010, with the reduction attributed to GIS boundary cleanup, not physical loss). The report attributes the wetland-acreage reductions specifically to invasive-species encroachment (crown daisy and mustard displacing wetland vegetation in Areas A and B2) and a GIS layer-duplication correction, not to project construction or other physical loss (*RestorCap, Final Delineation of Waters, letter report to USACE and CCC, May 10, 2022*)

8. The Restoration Project, EIR Status, and the Freshwater-vs.-Tidal Debate

8.1 Litigation and EIR timeline

- Dec. 30, 2020 — CDFW certified a Final EIR selecting the full-tidal "Alternative 1" design.
- May 17, 2023 — LA Superior Court found the EIR deficient on 2 of 26 contested issues, upholding the other 24.
- Sept. 28, 2023 — CDFW decertified the EIR per the court order; Oct. 24, 2023 NOP issued for a Revised EIR.
- Dec. 27, 2024 — Court of Appeal (Case No. B331193) affirmed the trial court in full.
- As of July 15, 2026 (re-confirmed directly against CDFW's live project page) — CDFW's Region 5 page: "Region 5… is in process of revising the Ballona Restoration EIR," implementation "dependent on available funding." No release date published; see Section 8.3, which restates this same finding (
- CDFW, Ballona Wetlands Restoration Project (current project page))

8.2 CDFW's historical-ecology and freshwater-alternative position

- *"A freshwater alternative was considered in some detail but not carried forward for full analysis. Restoring BWER to a freshwater system would not be historically accurate… and would not restore estuarine and associated habitats, a rare and diminished habitat along the Los Angeles coastline."*
- *"Prior to 1825, the Los Angeles River flowed through the Ballona watershed and into the Ballona Lagoon" (CDFW's quoted term; whether it denotes the same segment this memo elsewhere defines as the "Ballona Estuary", Section 5.4, has not been independently confirmed) "… After the Los Angeles River shifted to the south, the Ballona Wetlands became a coastal bar-built estuarine system with extensive tidally affected saltmarsh and brackish habitats."*

This differs from the advocacy position that Ballona has been "a predominantly freshwater seasonal wetland for 4,000 years." This memo is not intended to adjudicate the underlying historical-ecology dispute, addressed by a separate body of primary-source work outside this memo's scope.

8.3 Net effect

As of July 15, 2026 (re-confirmed directly against CDFW's live project page), no Revised EIR has been released, so there is no legally binding resolution of how the eventual project will balance full-tidal flow against the freshwater-marsh system advocacy groups want preserved.

8.4 The federal NEPA/USACE track — separately on hold

Separate from the state CEQA/EIR track above, the Restoration Project also requires federal environmental review: USACE authorization (Clean Water Act §404, Section 6.2) is itself a federal action triggering NEPA. Per CDFW's South Coast Regional Manager, speaking at the Los Angeles Regional Water Quality Control Board's December 18, 2025 meeting, this federal track is currently on hold, and for a different reason than the state EIR: USACE has not pursued its NEPA environmental document because CDFW does not yet have a construction-level project design — reported as roughly "60% design" — sufficiently developed for the Corps to act on. On this account, once CDFW's project design reaches that stage, CDFW would re-engage USACE in consultation, at which point USACE would determine what federal environmental document its own action requires.

A related, currently unresolved question: whether USACE's own commitment to the Restoration Project remains unchanged. Asked directly whether federal funding or program cuts posed any risk to the project, CDFW's Regional Manager stated she had not yet engaged USACE on this specific question and identified it as something to look into in 2026. This memo has not independently verified USACE's current position through any USACE-originated document; it is reported here as a direct quote from CDFW's Regional Manager, made in response to a board member's question during the Q&A following her presentation to the Water Board, not as a resolved fact about USACE's intentions.

8.5 LARWQCB's April 2026 push for EIR recertification

The Los Angeles Regional Water Quality Control Board (Executive Officer Susana Arredondo) sent CDFW's South Coast Regional Manager a letter dated April 20, 2026, stating LARWQCB's own account of the project's regulatory history: the Ballona Creek Wetlands were first listed as impaired on California's 1996 303(d) list; the State took title to approximately 600 acres in 2004; US EPA promulgated a sediment/invasive-vegetation TMDL for the wetlands in 2012; CDFW released a Draft EIR in 2017 and *certified a Final EIR in 2020* (consistent with the December 30, 2020 certification date already established in Section 8.1); and in 2023, following litigation, a Superior Court judge ordered CDFW to decertify the EIR and revise it to include reconsidered flood-control design parameters. The letter asks CDFW to complete environmental review and *recertify the EIR by September 30, 2026*, and to propose a schedule thereafter for engineering design (30/60/final), permitting (streambed alteration agreements, CWA Section 401 certification), NEPA consultation with USACE (Section 8.4), and identification of implementation funding. The Water Board states its intent to convene a meeting between its Chair and the CDFW Director, with a possible follow-up meeting involving the CalEPA and California Natural

Resources Agency secretaries if warranted (*Los Angeles Regional Water Quality Control Board, letter to Erinn Wilson-Olgin, April 20, 2026*)

8.6 A separate, earlier permitting dispute: the 2022 Nationwide Permit 6 geotechnical-borings appeal

On October 31, 2022, LARWQCB staff (Ashley Olmeda) issued a Notice of Applicability authorizing CDFW's proposed 16-boring geotechnical and chemical-sampling investigation in Area B — tied to the Restoration Project's first two construction sequences ("Sequences 1 and 2": relocating a gas line and enhancing/excavating channels in South and Southeast Area B) — under the State Water Board's General Order for the 2021 Nationwide Permits, specifically Nationwide Permit 6. The borings themselves were modest (10 geotechnical borings 8–10 inches in diameter, 25–60 feet deep; 6 chemical borings 2–3 inches in diameter, 6 feet deep; 0.45 acres of total temporary impact) (*LARWQCB Notice of Applicability, October 31, 2022*)

The Los Angeles Audubon Society (Travis Longcore, Ph.D., President; Margot Griswold, Ph.D., Treasurer/Education Chair) petitioned the State Water Resources Control Board to stay and review this NOA, first on November 28, 2022 and again with supplemental information on January 12, 2023. LAAS's central legal argument was that LARWQCB, as a CEQA Responsible Agency, was required to consider and adopt the certified 2020 Restoration Project FEIR before permitting any element of the project — including the geotechnical borings — to proceed, and that treating Sequences 1 and 2 as a stand-alone "single and complete project" under Nationwide Permit 6 improperly piecemealed a 35-sequence project the FEIR itself never analyzed as separable (citing 33 CFR 330.2(i) and CEQA Guidelines, 14 CCR § 15096(a)). LAAS also argued the General Order's cumulative-impacts requirement was unmet, citing the absence of any analysis of Playa Vista's historical reduction of surface water flow to the site (see the reported "50–63 percent" figure, Section 3.3 above) and disputing whether dredging new tidal channels into an area historically fed by freshwater and rainwater — with no historical tidal channels per Dark et al. 2011 and Jacobs et al. 2011 — could properly be characterized as "restoration" under the General Order's own definitions (*Los Angeles Audubon Society, petitions to SWRCB, November 28, 2022 and January 12, 2023*)

This memo has not located a petition-specific record of the State Water Resources Control Board's disposition of this petition, and has now directly confirmed why none exists to find: the Board's own Water Quality Petitions page states that petitions are "dismissed by operation of law" 91 days after receipt unless the Board grants review or the petitioner obtains abeyance, and that petitions received before April 2, 2026 are omitted from the page's current listing for that reason. This is a general mechanism this memo has verified directly, not a document naming this specific petition; no order or letter addressing the LA Audubon Society's petition individually was found, consistent with the Board's own stated practice of not publishing a specific ruling when a petition lapses this way. It is documented here as a specific, dated permitting dispute distinct from the main CEQA/EIR litigation timeline in Section 8.1, illustrating a recurring point of contention — whether individual Restoration Project construction sequences may be permitted piecemeal ahead of a

Revised EIR — that is likely to resurface once CDFW seeks to implement the eventual Revised EIR.

9. Frequently Repeated Claims and Their Evidentiary Status

Four statuses are used (Section "Purpose and Method," above): **Supported**, **Not Established**, **Contested/Unresolved**, and **Insufficient Evidence**. Confidence (High/Moderate/Low) reflects source type, not the reviewer's personal certainty.

Claim	Authority	Basis / Notes	Status (Confidence)
Playa Vista/CDFW unpermitted drains diverted freshwater away from Ballona habitat (2013–2017 matter)	CCC	Full enforcement letter (Apr. 11, 2014) read directly; resolved 2017.	Supported (High)
A second, separate "Square Drain" device was installed in 2009 in the reserve's "Extended Wetland Portion"	—	Grassroots-sourced only (Google Earth mapping claim); no CCC/CDFW record located.	Insufficient Evidence (Low)
Betty Courtney (retired CDFW) stated reduced water volume compromised BFM mitigation success	Huffman (recipient)	Traced to a 2020 Grassroots email forwarding scanned 2017 letter images; Grassroots is acting as an archive of a document it says originated at CDFW, not as the original claimant. Separately, Marc Huffman — the letter's named recipient — confirmed directly to this memo's preparer that the letter is in Brookfield's project files, though he no longer has access to them; this is independent of the Grassroots/saveballona.org chain and corroborates authenticity from the recipient's	Authenticity: Supported (Moderate; recipient-side corroboration) / Quoted content: Insufficient

		side. It does not verify the fidelity of the relayed scan's specific quoted figures (0.29/0.12 MGD) or language, which remain sourced only through Grassroots. No CDFW-hosted copy has been produced. CDFW's Office of General Counsel responded to a July 16, 2026 Public Records Act request (CDFW reference no. R021113-071626) on August 11, 2026, finding no responsive records; this does not establish inauthenticity (see Section 4.5) but the intended verification path did not produce a document. A separate copy of unknown provenance, content identical to the relayed scan, was also obtained (Section 4.5). Verification avenues are now considered exhausted; this status is treated as durable (Section 4.5).	Evidence (Low)
Ballona is a DWR-recognized Groundwater Dependent Ecosystem (GDE) under SGMA	DWR / GSA	DWR's 2023 approval flags GDEs as a data gap, not a completed determination; GSP identifies 37.3 acres (not the reserve's ~600 acres) as meeting GDE vegetation criteria (Table 2-18).	Not Establishe d (High)
Ballona's aquifers are clean, freshwater, drinking-quality resources	USGS / GSA	Water-quantity finding: USGS calls Ballona aquifer yield "quite variable," "not a major source of water supply." Water-quality finding (separate issue): 1950s chloride >500 mg/L (Poland/USGS 1959), entered into the GSP record via Grassroots' own retained counsel (comment #39); GSA responded that the Bellflower aquitard "is not a fresh water aquifer." Counter-claim ("Drinking Water" classification) likely traces to a real but distinct regulatory mechanism — presumptive MUN beneficial-use designation, not a water-quality certification (see Section 5.3).	Contested (Moderate)
Restoration project will increase saltwater intrusion into underlying aquifers	CDFW / LARWQ CB / GSA	CDFW's FEIR Response AL9-7 (Dec. 2019) answers LARWQCB's Feb. 2018 saltwater-intrusion challenge with a historical-baseline argument (no groundwater pumping under the project vs. 1930s pumping-plus-tidal conditions), not a forward-looking hydraulic-gradient analysis of the Silverado aquifer.	Contested/ Unresolved , Refined (Moderate)

		However, a separate response in the same Final EIR, Response O11-252, does directly address the tidal-prism-into-Silverado pathway, asserting that the Bellflower aquiclude's low permeability would preclude brackish-water migration into deeper aquifers — a categorical mechanism-based argument, not site-specific hydraulic modeling of the proposed project's specific tidal-prism increase. The Santa Monica Subbasin GSP (2021–22) reaches the same structural gap on an independent comment record, unaffected by O11-252: SMBGSA acknowledges no monitoring wells exist between Marina del Rey and the Charnock wellfields (Appendix C, Comment/Response 83), while separately asserting "no evidence" of intrusion risk from BWER excavation (Comment/Response 36) — a claim resting on the same regional model whose data gaps in this location are acknowledged elsewhere in the same document (Comment/Response 20). CDFW's own record now includes a specific mechanism-based rationale for the Silverado pathway; SMBGSA's independent record still shows the data gap in full. See Section 5.8.	
Freshwater marsh habitat is part of the reserve's founding, protected purpose	OAL / FGC	2005 Notice Register filing (Title 14 §630) read in full; names both salt marsh and freshwater marsh habitats.	Supported (High)
Ballona has been "a predominantly freshwater seasonal wetland" (not a tidal system) for millennia; current tidal/estuarine restoration premise is	Longcore (co-authorship standing); Griswold (independent GSP-record commen	Dissent traces to Longcore's direct co-authorship — with Dark, Stein, Bram, Osuna, Monteferante, Grossinger, and Beller — of Dark et al. 2011, "Historical Ecology of the Ballona Creek Watershed" (SCCWRP Technical Report #671), the definitive historical-ecology study of this watershed and the primary source CDFW itself cites, plus Jacobs et al. 2010/2011. Griswold, PhD, a restoration ecologist, is not a co-author of those papers; her standing here rests separately on her own named, substantive technical comments submitted directly into the Santa Monica Subbasin GSP's official	Contested (Moderate)

scientifically contested	ts); Tom McMahon (Terminus Report) vs. CDFW	administrative record (Appendix C, Comments #1–8), which SMBGSA was required to answer point by point — an independent professional assessment, not advocacy-organization argument relayed secondhand. In a July 2026 communication to this memo's preparer, prompted by the July 9, 2026 LMP workshop, Griswold stated directly that no recent science supports estuarine "restoration" as scientifically justified for this site — a current, sharpened restatement of the same position underlying her 2021 GSP-record comments, not a new or separate claim. Independently, Tom McMahon's Ballona Creek Terminus Report (v5.72, CC BY 4.0) — an archival reconstruction using Hancock's 1857–58 Federal Survey and the Courtney 1867–68 Partition Map, both predating and independent of the later ecological-classification literature — establishes the documentary basis for a seasonal interior freshwater lagoon, and was omitted from CDFW's planning baseline (which used T-Sheet 1432b only) (provenance note, paralleling this memo's disclosure convention for every other source type: the Terminus Report is this memo's own preparer's prior work product, not a third-party source, published separately under CC BY 4.0; authorship is disclosed here and in the report itself, and readers should weigh it accordingly. See Section 11 Sources for the verified citation). Grassroots Coalition and allied organizations amplify this critique but did not originate it.	
Ocean water, not freshwater, is the primary source contributing to Ballona's existing tidal estuary/west channels	TBF	Independent 2015 Bay Foundation isotope study (CDFW/SCC-funded, not advocacy or CDFW-authored) found oceanic water as primary contributor; creek contribution rises after precipitation.	Supported (High)
Playa Vista's 1990	LASC	Friends of Ballona Wetlands' own institutional history; underlying case is Friends of Ballona	Supported (Moderate)

settlement required the BFM to be superior habitat, maintained in perpetuity, and redesigned if incompatible		Wetlands v. CCC, LA Superior Court No. C525826. The settlement/judgment itself has not been independently obtained or read — it predates electronic court records and is not available through routine search; this memo's preparer searched a substantial personal archive and performed extensive additional independent research and could not locate it, converging on the same conclusion: retrieval would require an in-person or written records request to the LA Superior Court Clerk's Archives (Case No. C525826). This is the same underlying case in which a related 2006 amended judgment (Section 6.1) has also not been independently obtained (Rev 2.1). Treated as a durable, disclosed research limitation rather than a claim expected to be resolved by further search — the same standing this memo applies to the Conservancy's current bylaws and the 2006 amendment (Section 6.3).	
Legal authority over freshwater deliveries to the BFM rests with a state water right	CCC / USACE	No SWRCB appropriative water right found. Authority is a permit-and-deed structure: Army Corps Permit 90-426-EV, CDP 5-91-463/A2 performance conditions (quality/quantity tied to mitigation-credit release), and a Form of Deed reservation letting Playa Capital retain operational control after any conveyance to the State Lands Commission.	Not Established as stated / Clarified (High)
Ballona Wetlands Conservancy is governed by a four-member board (Friends, Playa Capital, LA City Council district, CA Secretary of Land Resources)	Conservancy / Playa Capital	Confirmed verbatim: this memo obtained and read the actual 2010 FHFA letter directly; consistent with two other independent accounts (Dec. 2022 CCC correspondence, 2018 SLC email). Describes the board as designed as of 2010. This memo has directly obtained and read the Conservancy's Form 990 filings from the CA AG Registry of Charitable Trusts (RCT Reg. No. 118809): only FY2018, FY2021, and FY2022 appear as distinct entries in the Registry's list. Part VII of each names individual officers (e.g., FY2018: Huffman, Tyrrell, Dyner-Harris), not four institutional board seats — but a Form 990's officer table is a distinct disclosure from an organization's full board, so this does not by itself confirm or contradict the four-seat structure above (Section 6.3.1).	Supported as to 2010 design (High) / Current practice: Contested, standing limitation

		Current (2017+) board composition is a durable open question requiring a physical LASC/records request, not further web research.	
HMMP for the BFM covers only limited water-quality parameters, and no agency-approved O&M manual was ever produced	USACE / LA City Planning	HMMP (1995) confirmed as real. A three-document identity (HMMP 1995 / O&M Manual Oct. 2001, Appendix F-2 / First Annual Report Dec. 2003) is reported and partially corroborated — the Dec. 2003 report's existence and role is confirmed, though not the specific FEIR page cited. Contradicts the "never produced" claim. HMMP's own itemized parameter list still not found; EIR-described constituent list available as a partial substitute.	Partially Contradicted (Moderate) / Refined (Moderate)
DWR well completion reports for Playa Vista dewatering wells are legally confidential and unobtainable without a records request	DWR / SWRCB	Incorrect as a description of current law — confirmed by 2 independent government sources (current codified statute + SWRCB's own 2015 Executive Director report). Refined finding: 131 WCRs on file for "Playa Vista" (2010–2022; 107 new-well construction + 24 destruction records, not the earlier 127/4 figure), but the specific extraction/dewatering wells cited by the GSP were not identified by name (database query independently replicated a second time). This is now consistent with a separate, directly-confirmed finding (see below) that the GSA itself revised the final GSP to remove a "dewatering wells" characterization, citing uncertainty that such wells exist in the form originally described.	Corrected (High) / Refined (Moderate)
Freshwater Marsh inflow includes treated groundwater pumped from Playa Vista dewatering wells, ~174 acre-ft in Q3 2020	GSA (citing Playa Capital Co.)	This memo obtained and read the GSP Appendices C-D directly. Both this passage and the "primary component of flow" framing (§2.4.7.4) are confirmed Draft GSP language. The GSA's own response confirms the "dewatering wells" characterization was revised/removed before final adoption. The 174 ac-ft figure survives, essentially unchanged, in the final adopted GSP Chapter 2 (p. 2-63); the final document itself is confirmed to exist and is dated as reported, though page 2-63 specifically has not been independently re-fetched through a different method.	Not Established as stated (High) / Final-text figure Reported, Not Independently Verified (Moderate)

10. Summary of Current State of Affairs (dates as noted per row; most recent entry July 26, 2026)

Issue	Verified status	Principal Source
CDFW/Playa Vista Unpermitted Drains (2013–2017)	Confirmed Coastal Act violation; resolved by 2017 CCC/CDFW agreement to cap drains (primary CCC letter read in full).	CCC
Legal authority over BFM freshwater deliveries	Permit-and-deed structure (USACE 90-426-EV, CDP 5-91-463/A2, Form of Deed reservation to Playa Capital) — not a state water right, not CDFW-controlled. *This describes legal/permit authority specifically, distinct from the reported, not yet independently corroborated day-to-day operational discretion CDFW is described as exercising jointly with BFM/Conservancy operators over the volume actually delivered at any given time (Sections 2, 3.3, 6.2) — a private, credible-but-uncorroborated account, not a primary operational record. The two are not in tension: a party can hold no underlying legal water right while a separate, reported arrangement describes practical control over how much of the water it does deliver flows where.*	USACE / CCC
Ballona Wetlands Conservancy governance	Real nonprofit entity (CA filing 11/30/2000, EIN 91-2100439) formed per 1990 settlement (LASC No. C525826); 4-member board structure confirmed via directly-obtained 2010 FHFA letter (as designed then); current (2017+) practice still disputed by Grassroots.	FHFA / CCC
Ballona as DWR-certified GDE	Not a completed, dedicated DWR determination; 37.3 acres (not the full ~600-acre reserve) meet GDE vegetation criteria per the 2023 GSP.	DWR
Ballona aquifer water quality/yield	USGS: variable yield, not a major supply source (quantity). GSA: Bellflower aquitard chloride >500 mg/L in 1950s, "not a fresh water aquifer" (quality) — entered into the record by Grassroots' own counsel.	USGS / GSA
Primary water source of the existing tidal estuary	Independent Bay Foundation isotope study (2015): oceanic water is the primary contributor; creek contribution rises after rain events.	TBF

Aquifer/seawater-intrusion risk from restoration	Contested/Unresolved, Refined (Moderate). CDFW's Response O11-252 asserts a categorical permeability-based mechanism (Bellflower aquiclude's low hydraulic conductivity) precluding the tidal-prism-into-Silverado pathway, refining this memo's prior finding that neither CDFW response addressed this pathway — but this is a general characterization, not site-specific hydraulic modeling. SMBGSA's independent GSP record is unchanged: its own Appendix F still admits no monitoring wells exist between Marina del Rey and inland pumping areas. See Section 5.8; matches Section 9.	CDFW / GSA
Well completion report access	Not legally confidential under current law (Water Code §13752, amended by SB 83, effective June 24, 2015); publicly obtainable via DWR, redacted for owner info.	DWR / SWRCB
2005 Ecological Reserve designation	Confirmed via OAL Notice Register filing (Vol. 20-Z, p. 663) and CDFW's current reserve description.	OAL / CDFW
Restoration Project EIR	Decertified since Sept. 28, 2023; Revised EIR still unreleased and unscheduled as of July 15, 2026 (re-confirmed live), per CDFW's own project page, citing funding constraints.	CDFW
Land Management Plan	Newly initiated in 2026; July 9 workshop was the first in-person session (following earlier virtual focus-group meetings, April–May 2026); public survey period ran through July 26, 2026.	CDFW

11. Sources — Full URLs

Primary, government, and directly-reviewed sources

- CDFW July 2026 Calendar (workshop notice)
- CDFW, Land Management Plan Stakeholder Engagement Meetings (slide deck)
- CDFW, Ballona Wetlands Ecological Reserve (reserve page)
- CDFW, Ballona Wetlands Restoration Project (current project page & FAQ)
- LARWQCB meeting transcript/caption file, December 18, 2025 (CDFW South Coast Regional Manager presentation and Board Q&A; LARWQCB's own automated transcript, published alongside its video recording of the meeting on LARWQCB's own website; downloaded directly and read in full by Tom McMahon; this memo's

characterization of it was independently verified claim-by-claim against the transcript itself; not yet cross-checked against the Board's certified written minutes)

- Marc Huffman (Playa Capital Company, LLC), letter to LARWQCB, February 25, 2019 (obtained by Tom McMahon, full text reviewed)
- California Coastal Commission letter to Playa Capital Company, LLC, April 11, 2014 (full text)
- CCC staff report, December 2017 (drains resolution)
- CCC Staff Report, Revocation Request, Application No. 5-91-463-A2 (2001)
- California Regulatory Notice Register 2005, Vol. 20-Z (OAL filing, p. 663)
- DWR Statement of Findings, Santa Monica Subbasin GSP, October 26, 2023
- Santa Monica Subbasin GSP — Appendices C–D (comment/response)
- Santa Monica Basin GSA overview, City of Santa Monica
- DWR SGMA Portal, GSP Annual Report program page (Rev 1.9: replaced dead deep-link with live general page)
- USGS Water-Resources Investigations Report 03-4065 (Reichard et al., 2003)
- DWR Bulletin 118, West Coast Subbasin description
- USGS Scientific Investigations Report 2021-5088
- City of LA, Village at Playa Vista Draft EIR (environmental setting)
- Los Angeles City Planning Department, Staff Report to the City Planning Commission, Case No. CPC-2003-5865-ZC-GPA-SPA-DA (CEQA: ENV-2002-6129-EIR), staff report dated December 10, 2009, transmitted to City Council January 28, 2010 [Council File 10-0245; obtained by Tom McMahon from the LA City Council website; source for the "base of the Westchester Bluffs" riparian-corridor citation in Section 3, confirmed by direct text extraction in Rev 2.10, correcting a prior mislabeled citation (Rev 2.7–2.9)]
- City of LA, Village at Playa Vista FEIR — List of New References
- LARWQCB NPDES Order 97-046 fact sheet
- Cal. Water Code §13752, current codified text (Justia)
- SWRCB Executive Director's Report, November 17, 2015 (confirms SB 83 amendment)
- DWR Well Completion Report Map App

- BWER Habitat Descriptions, Santa Monica Bay Restoration Commission/TBF, 2014
- The Bay Foundation, Comprehensive 5-Year Monitoring Report, Dec. 2015
- Dorsey, John H. (LMU CURes), "The Ballona Wetlands: Nature's Water Treatment System," April 27, 2015 [source of the "15 of 527 acres (2.9%)" tidal-inundation figure cited in Sections 2 and 5.4; added in Rev 1.9.32]
- McMahon, Tom, "Ballona Creek Terminus Report" (v5.72), Internet Archive, published March 1, 2026, CC BY 4.0 [this memo's preparer's own prior work product; see Section 9 provenance note; URL verified in Rev 1.9.35]
- Friends of Ballona Wetlands, institutional history
- NCWPDR, Ballona Freshwater Marsh overview
- CCC correspondence record, December 2022 (independent letter re: Conservancy board composition)
- LARWQCB, Ballona Creek Watershed Management Group / EWMP page
- FHFA docket 2010-N-11, joint Conservancy/Playa Capital comment letter, October 13, 2010 (full text obtained and reviewed) [added to this list in Rev 1.9]
- Friends of Ballona Wetlands, board bio: Catherine Tyrrell [added to this list in Rev 1.9]
- DWR General Public Well Completion Report Request form [added to this list in Rev 1.9]

Advocacy sources (Grassroots Coalition / saveballona.org) — treated as advocacy, not primary, throughout

- "Ballona Wetlands Needs SGMA/GDE Protective Evaluation" (primary letter, Nov. 22, 2022)
- Betty Courtney letter relay (2017 letter, image scans)
- Grassroots Coalition, Ballona Wetlands Conservancy control claims
- Margot Griswold, "Inconsistencies and Missed Opportunities," LA Audubon, Oct. 30, 2021
- Playa Vista, Riparian Corridor Update, 2016

Contemporaneous news coverage

- Argonaut News, "Revitalization Plan: Ballona Wetlands Restoration Project Undergoes Revision Period," Mar. 2024
- Patch, "Ballona Wetlands: State Opens Public EIR Comment Period," Nov. 2023

Appendix: Scope and Limits of This Memo

- This is not a legal opinion. Nothing in this memo should be read as legal advice regarding CEQA compliance, water rights, coastal permitting, or any litigation referenced herein.
- This is not a hydrogeologic model. The aquifer schematic and flow diagram in Sections 2 and 5 are conceptual aids compiled from cited sources, not independent technical modeling of the Ballona groundwater system.
- This is not a CEQA comment letter and takes no position on the merits of CDFW's Restoration Project or any alternative to it.
- This is a documentary review of primary-source records as of the dates noted throughout this memo (most recently August 12, 2026) — publicly available agency filings and documents, plus materials obtained directly through correspondence, direct expert communications, and a personal research archive (see "Purpose and Method" above) — following a July 9, 2026 CDFW public workshop on the BWER Land Management Plan.
- Where primary documents were unavailable during this review — due to site access restrictions, document size, or search limitations — that fact is stated explicitly at the relevant point in the text, rather than presenting secondhand or unverified information as independently confirmed.
- This memo does not, and cannot, resolve genuine scientific or historical-ecology disputes (e.g., the freshwater-vs.-tidal historical baseline question) that are outside its scope; it documents the competing positions and their sourcing rather than adjudicating between them.
- During this round, this memo's author also reviewed SCCWRP Technical Report #671, *Historical Ecology of the Ballona Creek Watershed* (Dark et al., 2011), together with its April 20, 2026 corrigendum, which withdraws a pre-1825 "series of earthquakes" claim and narrows a "three consecutive years of heavy rains" claim (while preserving, as supported, that heavy rains specifically in 1825 accompanied the Los Angeles River's change of course). That report is historical-ecology, not engineering or regulatory, material; it corroborates this memo's separate Ballona Creek Terminus Report and 1825 Avulsion analysis (outside this memo's scope) and was not incorporated into this document for that reason.
- Resolved: a dedicated audit of this memo for asymmetric treatment between named individual experts (principally Griswold and Longcore) and institutional sources (CDFW, the GSA) found the pattern methodologically sound — expert comments are consistently treated as prompts for independent verification against primary documents, not as authority accepted on its own, with documented instances of correction, partial validation of the institutional position, and continued Contested/Unresolved status on the underlying dispute; institutional claims are, if anything, held to a stricter evidentiary bar. One residual provenance point that audit

surfaced (this memo's own preparer's Terminus Report cited as affirmative evidence) is addressed via the Section 9 provenance note.

Resolved: the methodological question of whether this memo's source-type-based confidence-tier framework adequately handles convergent circumstantial evidence, using the Betty Courtney letter (Section 4.5) as the test case, was examined in detail. The conclusion: the letter's Authenticity rating remains Supported (Moderate), not High, since no party has examined a chain-of-custody-established primary original; but the framework benefited from an explicit rule distinguishing genuine independent convergence from mere repetition or absence of contradiction, now added to Purpose and Method, and an optional corroboration note now available in Section 9 to record where that convergence is genuinely present. One imprecision in this item's own original framing is corrected here: the original framing described "several independent circumstantial indicators" without distinguishing them by kind. Of the four originally listed, only Huffman's direct recipient confirmation is genuinely independent, affirmative evidence. The second identically-worded copy is not independent corroboration (its provenance cannot be shown separate from the original). The absence of any source contradicting authenticity, and the mundane explanation for CDFW's negative records search, are both the absence of disconfirming evidence, not affirmative convergence — a distinction now codified in Purpose and Method so it is not blurred again. The Betty Courtney letter's authenticity question itself remains closed as of Rev 2.5; this entry closes only the methodological question about how to describe evidence of this kind going forward.